BULLETIN

OF THE

Society for the Promotion of Engineering Education

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MEMBERSHIP AND DUTIES OF COMMITTEES OF THE SOCIETY.

1. **Executive Committee:** H. S. Jacoby, W. O. Wiley, F. L. Bishop.
2. **Publication Committee:** H. S. Jacoby, A. Marston, F. L. Bishop, *Editor.*

3. **Program Committee:** H. S. Jacoby, *Chairman;* G. R. Chatburn, F. H. Constant, W. O. Wiley, F. L. Bishop.

Committees Nos. 1, 2 and 3 have their work defined by the By-Laws of the Society.

4. **Committee on Committees:** H. S. Jacoby, *Chairman;* G. R. Chatburn, F. H. Constant, W. O. Wiley, F. L. Bishop, C. R. Mann, A. A. Potter.

5. **Joint Committee on Engineering Education:** Representatives from the several organizations.

American Society of Civil Engineers: Desmond FitzGerald, *Chairman;* Onward Bates and D. W. Mead.

American Society of Mechanical Engineers: F. Clark and A. C. Humphreys.

American Institute of Electrical Engineers: C. F. Scott and S. Sheldon.

American Chemical Society: C. Richardson and H. P. Talbot.

American Institute of Chemical Engineers: J. W. Withrow.

American Institute of Mining Engineers: H. M. Howe and J. H. Hammond.

Society for the Promotion of Engineering Education: C. L. Crandall, D. C. Jackson and G. C. Anthony.

Carnegie Foundation for the Advancement of Teaching: H. S. Pritchett and C. R. Mann.

General Education Board: E. B. Andrews.

6. **Representative on Joint Committee on Classification of Colleges:** C. S. Howe.

Committees 4, 5 and 6 have duties indicated by their titles.

7. **Institutional Committee:** G. R. Chatburn, *Chairman;* Martin McCue, F. H. Constant, C. H. Crouch, Hollis Godfrey, H. L. Hodgkins, F. E. Ayers, Ira N. Hollis, C. L. Crandall, F. E. Turneaure, J. B. Hill, A. A. Potter, C. L. Cory, H. N. Lendall, J. G. Merrill, S. B. McCormick, S. W. Beyer, P. F. Walker, W. S. Rodman, J. F. Wilson, C. E. Magnusson, G. M. Braune.

Duties are defined by report of Special Committee.

8 **Committee on Entrance Requirements for Engineering Schools:** J. J. Flather, *Chairman;* L. P. Breckenridge, H. E. Webb, C. M. Wirick, F. W. McNair.

Combined with previous committee on Secondary Schools. Requested to revise 1910 report on entrance requirements.

9. **Committee on Administration:** F. H. Constant, *Chairman;* W. M. Riggs, O. V. P. Stout, R. W. Gay, A. H. Fuller, J. P. Jackson, Fred. Bass.

Occupation of engineering teachers during the summer vacation.

(1) Present status of summer employment.
(2) Opportunities for such employment.
(3) Fields recommended.

Committees on Fundamental Subjects

10. **Mathematics:** L. C. Plant, *Chairman;* E. V. Huntington, H. E. Cobb, E. R. Hedrick, S. A. Moss.

To what extent does co-ordination exist between mathematics, physics and mechanics.

11. **Physical Sciences:** D. C. Miller, *Chairman;* W. S. Franklin, G. A. Goodenough, F. K. Richtmyer, R. M. Bird, J. H. James, H. P. Talbot.

To show the relation of the first courses in chemistry and physics in the colleges to the courses in these subjects given in the preparatory school; also to continue present investigations.

12. **English:** S. C. Earle, *Chairman;* F. N. Raymond, J. M. Telleen, C. F. Park, Frank Aydelotte, C. W. Park.

Present status of the teaching of English to engineering students.

13. **Mechanics and Hydraulics:** E. R. Maurer, *Chairman;* L. M. Hoskins, S. M. Woodward, C. E. Fuller, Wm. Kent, H. F. Moore, J. E. Wadsworth.

In addition to investigations already under way, secure information regarding the following:

1. What is included in the term "Mechanics" as used in the various courses at different institutions.

2. What department or departments teach mechanics.

3. What experiments have been made in the methods of teaching mechanics.

4. What means were used to test these experiments in teaching mechanics.

5. Typical lists of examination papers from all colleges.

14. **Economics:** J. A. L. Waddell, *Chairman;* F. A. Fetter, M. E. Cooley, Morris Knowles.

Duties to be defined by committee.

Committees on Professional Subjects

15. **Civil:** F. P. McKibben, *Chairman;* W. E. Mott, J. C. Tracy, C. J. Tilden, F. H. Newell, C. R. Young.

Complete present work and start investigations on concrete construction.

16. **Mechanical:** A. M. Greene, Jr., *Chairman;* C. Russ Richards, W. H. Meeker, C. C. Thomas, E. J. Fermier.

Present status of shop laboratory instruction.

17. **Electrical:** C. F. Scott, *Chairman;* C. L. Cory, C. P. Harding, C. R. Dooley, G. B. Thomas, F. B. Jewett, A. L. Rohrer.

Present practice in the teaching of alternating and direct current versus the teaching of electrical currents.

18. **Mining:** F. W. Sperr, *Chairman;* E. A. Holbrook, J. B. Porter, H. H. Stoek.

Continue present investigations.

19. **Committee on Statistics:** A. J. Wood, *Chairman;* G. L. Hosmer, J. D. Phillips, F. A. Fish.

The Committee on Committees suggests that this Committee, in addition to the work already under way, secure statistics regarding the following:

1. What record of attendance and mortality of students, and location and occupation of alumni is kept by each institution.

2. What statistical studies have already been made, or are being made of students' academic records, either by the institution or by the members of the faculty.

3. What other work along the line of statistical studies is being made at your institution.

4. From what institutions should information which is desired by the Society be secured.

20. **Committee on Standardization of Technical Nomenclature:** J. T. Faig, *Chairman;* S. C. Earle, W. D. Ennis, F. N. Raymond, D. M. Wright.

Continue the present investigations and make recommendations regarding the use of symbols in mechanics and hydraulics.

OFFICERS 1915–16.

President

H. S. Jacoby, Ithaca, N. Y.

Vice-Presidents

G. R. Chatburn, Lincoln, Nebr. F. H. Constant, Princeton, N. J.

Secretary

F. L. Bishop, Pittsburgh, Pa.

Treasurer

Wm. O. Wiley, New York, N. Y.

COUNCIL.

Elective Members.

J. F. Hayford, Evanston, Ill.
M. S. Ketchum, Boulder, Colo.
A. S. Langsdorf, St. Louis, Mo.
F. P. Spalding, Columbia, Mo.
H. W. Tyler, Boston, Mass.
P. F. Walker, Lawrence, Kas.
S. M. Woodward, Dayton, Ohio.

Terms expire in 1916.

R. H. Fernald, Philadelphia, Pa.
A. H. Fuller, Seattle, Wash.
A. M. Greene, Jr., Troy, N. Y.
E. V. Huntington, Cambridge, Mass.
V. Karapetoff, Ithaca, N. Y.
D. C. Miller, Cleveland, O.
W. M. Riggs, Clemson College, S. C.

Terms expire in 1917.

L. P. Breckenridge, New Haven, Conn.
C. L. Cory, Berkeley, Cal.
C. H. Crouch, Grand Forks, N. D.
O. P. Hood, Pittsburgh, Pa.
F. P. McKibben, S. Bethlehem, Pa.
G. D. Shepardson, Minneapolis, Minn.
J. B. Whitehead, Baltimore, Md.

Terms expire in 1918.

Past-Presidents—Members Ex-Officio.

G. F. Swain, Cambridge, Mass.
Mansfield Merriman, N. Y., N. Y.
H. T. Eddy, Minneapolis, Minn.
T. C. Mendenhall, Ravenna, O.
Ira O. Baker, Urbana, Ill.
Robert Fletcher, Hanover, N. H.
C. Frank Allen, Boston, Mass.
F. W. McNair, Houghton, Mich.
C. L. Crandall, Ithaca, N. Y.
D. C. Jackson, Boston, Mass.
Chas. S. Howe, Cleveland, O.
F. E. Turneaure, Madison, Wis.
H. S. Munroe, N. Y., N. Y.
A. N. Talbot, Urbana, Ill.
W. G. Raymond, Iowa City, Ia.
W. T. Magruder, Columbus, O.
G. C. Anthony, Tufts College, Mass.
Anson Marston, Ames, Ia.

LIST OF INSTITUTIONAL MEMBERS.

Municipal University of Akron, College of Engineering, Akron, O., Fred. E. Ayer, Dean 1914
Alabama Polytechnic Institute, Auburn, Ala., Chas. C. Thach, President 1914
University of Arizona, Tucson, Ariz., von KleinSmid, President .. 1914
Brown University, Providence, R. I., W. H. P. Faunce, President. 1914
University of California, Berkeley, Calif., Benjamin Ide Wheeler, President 1913
Carnegie Institute of Technology, Pittsburgh, Pa., A. A. Hamerschlag, Director 1915

INSTITUTIONAL MEMBERS.

Case School of Applied Science, Cleveland, O., Chas. S. Howe, President 1913
The Citadel, The Military College of South Carolina, Charleston, S. C., O. J. Bond, Supt. 1914
Clemson A. & M. College, Clemson College, S. C., W. M. Riggs, President 1913
Colorado School of Mines, Golden, Colo., Wm. B. Phillips, President 1915
University of Colorado, Boulder, Colo., Livingston Farrand, President 1915
Cornell University, Ithaca, N. Y., Jacob Gould Schurman, President 1913
Drexel Institute, Philadelphia, Pa., Hollis Godfrey, President .. 1914
The George Washington University, Washington, D. C., Chas. H. Stockton, President 1913
Georgia School of Technology, Atlanta, Ga., K. J. Matheson, President 1913
Iowa State College, Ames, Ia., Raymond A. Pearson, President. 1913
State University of Iowa, Iowa City, Ia., Thomas H. Macbride, President 1914
Junior College of The Crane Technical High School, Chicago, Ill., Wm. J. Bartholf, Principal 1915
Kansas State Agricultural College, Manhattan, Kans., Ed. T. Hackney, President 1915
The University of Kansas, Lawrence, Kans., Frank Strong, Chancellor 1914
Lafayette College, Easton, Pa., J. H. MacCracken, President ... 1915
Lehigh University, South Bethlehem, Pa., Henry S. Drinker, President 1914
Miami University, Oxford, O., R. M. Hughes, President 1913
Michigan College of Mines, Houghton, Mich., F. W. McNair, President 1914
University of Michigan, Ann Arbor, Mich., H. B. Hutchins, President 1913
University of Missouri, Columbia, Mo., A. Ross Hill, President. 1914
University of Nebraska, Lincoln, Nebr., Samuel Avery, Chancellor. 1914
New York University, New York, N. Y., Elmer E. Brown, President 1913
The University of North Dakota, Grand Forks, N. D., Frank L. McVey, President 1913
University of Notre Dame, Notre Dame, Ind., John Cavanaugh, President 1913
Ohio Wesleyan University, Delaware, O., Herbert Welch, President 1914

INSTITUTIONAL MEMBERS.

State University of Oklahoma, Norman Okla., Stratton D. Brooks, President 1913
The Pennsylvania State College, State College, Pa., Edwin E. Sparks, President 1914
University of Pennsylvania, Philadelphia, Pa., Edgar F. Smith, Provost 1914
University of Pittsburgh, Pittsburgh, Pa., Samuel B. McCormick, Chancellor 1913
Princeton University, Princeton, N. J., John Grier Hibben, President 1914
Purdue University, LaFayette, Ind., W. E. Stone, President..... 1915
Rhode Island State College, Kingston, R. I., Howard Edwards, President 1913
Rutgers College, New Brunswick, N. J., W. H. S. Demarest, President 1914
University of South Carolina, Columbia, S. C., S. C. Mitchell, President 1914
Stevens Institute of Technology, Hoboken, N. J., A. C. Humphreys, President 1913
Syracuse University, Syracuse, N. Y., James R. Day, Chancellor. 1913
The Temple University, Philadelphia, Pa., R. H. Conwell, President 1914
Throop College of Technology, Pasadena, Calif., Jas. A. B. Scherer, President 1913
Toledo University, Toledo, O., A. M. Stowe, President 1915
Tufts College, Tufts College, Mass., Hermon C. Bumpus, President 1914
U. S. Naval Academy, Annapolis, Md., Captain E. W. Eberle, Superintendent 1913
University of Utah State School of Mines, Salt Lake City, Utah, J. F. Kingsbury, President 1914
Vanderbilt University, Nashville, Tenn., J. H. Kirkland, Chancellor 1914
University of Vermont, Burlington, Vt., Guy Potter Benton, President 1915
University of Virginia, University, Va., Edwin A. Alderman, President 1915
Washington University, St. Louis, Mo., David F. Houston, Chancellor 1914
University of Washington, Seattle, Wash., Henry Suzzallo, President 1913
University of Wisconsin, Madison, Wis., Chas. R. Van Hise, President 1914
Worcester Polytechnic Institute, Worcester, Mass., Ira N. Hollis, President 1913

LIST OF INDIVIDUAL MEMBERS.

Revised to March 1st, 1916.

ACKER, M. W., Instructor in charge of Machine Shops, David Ranken, Jr., School of Mechanical Trades, St. Louis, Mo. 1913

ADAMS, COMFORT, A., Abbott and James Lawrence Professor of Electrical Engineering, Harvard University, and Massachusetts Institute of Technology, Cambridge, Mass. 1894

ADAMS, CONRAD A., Instructor in Mechanic Arts, Tufts College, Tufts College, Mass. 1912

ADAMS, FRANK D., Dean of the Faculty of Applied Science, McGill University, Montreal, Canada..... 1909

ADAMS, F. J., Instructor in Electrical Engineering, Worcester Polytechnic Institute, Worcester, Mass. 1912

ADAMS, W. H., Professor of Mechanical Engineering, Throop College of Technology, Pasadena, Calif. 1908

ADAMSON, K. F., Assistant Professor of Mechanical Engineering, Case School of Applied Science, Cleveland O. 1912

ADELSPERGER, ROLLAND, Professor of Architecture and Architectural Engineering, Texas A. & M. College, College Station, Tex. 1914

ADLER, A. A., Assistant Professor of Mechanical Drawing and Design, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. 1910

AGG, T. R., Professor of Highway Engineering, Iowa State College, Ames, Ia. 1915

AKELEY, L. E., Dean of the College of Engineering and Professor of Physics, University of South Dakota, Vermilion, S. D.... 1910

ALBERT, C. E., Instructor in Mechanics and Materials of Construction, The Pennsylvania State College, State College, Pa 1914

ALDERSON, Victor C., President, Winnemucca Bonanza Mining Co., Winnemucca, Nev. 1900

ALDRICH, WM. S., Associate Professor of Electrical Engineering, Colorado Agricultural College, Fort Collins, Colo. 1893

ALEXANDER, M. W., With the General Electric Co., West Lynn, Mass. 1911

ALLEE, W. G., Instructor in Physics, Kansas State Agricultural College, Manhattan, Kans. 1915

ALLEN, C. F., Professor of Railroad Engineering, Massachusetts Institute of Technology, Boston, Mass..... 1893

ALLEN, C. M., Professor of Hydraulic Engineering, Worcester Polytechnic Institute, Worcester, Mass..... 1903

ALLEN, F. G., Assistant Professor in General Engineering Drawing, University of Colorado, Boulder, Colo. 1913

ALLEN, H. D., Assistant Professor of German, Case School of Applied Science, Cleveland O. 1914

ALLEN, J. R., Professor of Mechanical Engineering, University of Michigan, Ann Arbor, Mich. 1907

ALLISON, W. F., Professor of Municipal and Highway Engineering, University of Washington, Seattle, Wash. 1915

ANDERSON, A. H., Assistant Professor of Mechanical Engineering, Armour Institute of Technology, Chicago, Ill. 1910

ANDERSON, D. S., Professor of Electrical Engineering, Tulane University, New Orleans, La. 1900

ANDERSON, F. PAUL, Dean of the College of Mechanical and Electrical Engineering, Professor of Mechanical Engineering and Director of the Experiment Engineering Laboratories, State University of Kentucky, Lexington, Ky. 1894

ANDERSON, G. G., Consulting Civil Engineer, 436 Consolidated Realty Bldg., Los Angeles, Cal. 1910

ANDERSON, R. J., Instructor in Metallurgy, Missouri School of Mines, Rolla, Mo. 1915

ANDERSON, WILLIAM, Assistant Professor of Mechanical Engineering, Michigan College of Mines, Houghton, Mich. 1910

ANDREWS, W. H., Associate Professor of Mathematics, Kansas State Agricultural College, Manhattan, Kans. 1912

ANDROS, S. O., Assistant Professor of Mining Research in charge of State Coal Mining Investigations, Dept. of Mining Engineering, University of Illinois, Urbana, Ill. 1913

ANGEL, WM. P., Assistant Professor of Physics, Oklahoma A. & M. College, Stillwater, Okla. 1914

ANTHONY, G. C., Professor of Technical Drawing and Dean of the Engineering School, Tufts College, Tufts College, Mass. 1896

APPLEBY, W. R., Dean of the Minnesota School of Mines and Professor of Metallurgy, University of Minnesota, Minneapolis, Minn. 1913

APPLETON, W. D., Mechanical Engineer, The Guanajuato Power and Electric Co., Zamora, Michoacan, Mexico 1907

APPLIN, SAMUEL, Instructor in Iron Working, University of Pennsylvania, Philadelphia, Pa. 1912

ARD, C. E., Consulting and Contracting Engineer, 402 American Trust Bldg., Birmingham, Ala. 1911

ARKLEY, L. M., Lecturer in Mechanical Engineering, University of Toronto, Toronto, Canada 1908

ARNETT L. D., Librarian, West Virginia University, Morgantown, W. Va. 1915

ARNOLD, BION J., Consulting Electrical Engineer, 105 S. La Salle St., Chicago, Ill. 1906
ASHTON, C. H., Professor of Mathematics, University of Kansas, Lawrence, Kans. 1915
ASTON, JAMES, Assistant Professor of Metallurgy, University of Cincinnati, Cincinnati, O. 1910
ATKINSON, F. W., President of the Polytechnic Institute of Brooklyn, Brooklyn, N. Y. 1905
ATKINSON, THOS. W., Dean of the College of Engineering, Louisiana State University, Baton Rouge, La. 1907
AUDE, H. T. R., Assistant Professor of Mathematics, Carnegie Institute of Technology, Pittsburgh, Pa. 1910
AUSTIN, F. E., Professor of Electrical Engineering, Dartmouth College, Hanover, N. H. 1912
AYARS, W. S., Professor of Electrical and Mechanical Engineering, Nova Scotia Technical College, Halifax, N. S. 1907
AYDELOTTE, FRANK, Professor of English, Massachusetts Institute of Technology, Boston, Mass. 1915
AYER, A. W., Factory Manager, Midland Chemical Co., Chicago, Ill. 1894
AYER, FRED. E., Dean College of Engineering, and Professor of Civil Engineering, Municipal University of Akron, Akron, O. 1907
AYRES, BROWN, President of the University of Tennessee, Knoxville, Tenn. 1898
BABBITT, ARTHUR B., Head of the Department of Drawing and Design, Wentworth Institute, Boston, Mass. 1912
BABCOCK, E. J., Dean of the College of Mining Engineering, Professor of Industrial Chemistry and Metallurgy and Director of Experimental Engineering Stations, University of North Dakota, Grand Forks, N. D. 1907
BACHE-WIIG, Jens, Professor of Electrical Engineering, Norwegian Technical University, Trondhjem, Norway, Europe 1914
BACON, E. W., Treasurer, J. B. Lippincott Co., Philadelphia, Pa. 1911
BACON, G. M., Civil Engineer, 1115 Newhouse Bldg., Salt Lake City, Utah 1907
BAEBENROTH, A. C., Professor and Head of Department of English, College of Applied Science, Syracuse University, Syracuse, N. Y. 1915
BAILEY, A. R., Assistant Professor of Civil Engineering, University of Michigan, Ann Arbor, Mich. .....
BAKER, IRA O., Professor of Civil Engineering, University of Illinois, Urbana, Ill. 1893
BALDWIN, A. T., President and Manager, Precision Instrument Co., 110 Beaubien St., Detroit, Mich. 1913

LIST OF MEMBERS.

BALDWIN, G. J., Trustee Georgia School of Technology, President Street Railways and Electric Light and Power Cos., 225 Hall St., E. Savannah, Ga. 1913

BALL, ALBERT, Professor of Physics, Cooper Union, New York, N. Y. 1908

BANKSON, E. E., Lecturer in Hydraulics and Municipal Engineering, University of Manitoba, Winnipeg, Man. 1910

BARBA, C. E., Assistant Engineer in office of M. E., P. R. R., Altoona, Pa. 1915

BARK, ELMER, Instructor in Mechanical Engineering, University of Pennsylvania, Philadelphia, Pa. 1912

BARNARD, W. N., Professor of Power Engineering, Cornell University, Ithaca, N. Y. 1910

BARNES, A. F., Dean School of Engineering, New Mexico College of A. & M. Arts, State College, New Mex. 1914

BARNES, F. A., Professor of Railroad Engineering, Cornell University, Ithaca, N. Y. 1904

BARNEY, E. S., Principal, Hebrew Technical Institute, 36 Stuyvesant St., New York, N. Y. 1912

BARNEY, S. E., Assistant Professor of Civil Engineering, Yale University, New Haven, Conn. 1894

BARRACLOUGH, S. H., Professor of Mechanical Engineering, University of Sydney, Sydney, Australia. 1900

BARROWS, H. K., Associate Professor of Hydraulic Engineering, Massachusetts Institute of Technology 1902

BARROWS, W. E. JR., Professor of Electrical Engineering, University of Maine, Orono, Me. 1908

BARTHOLOMEW, H. C., Associate Professor of Electrical Engineering, Iowa State College, Ames, Ia. 1915

BARTON, E. C., Managing Director, City Electric Light Co., Brisbane, Queensland, Australia 1914

BASQUIN, O. H., Professor of Applied Mechanics, Northwestern University, Evanston, Ill. 1908

BASS, FREDERIC, Professor of Municipal and Sanitary Engineering, University of Minnesota, Minneapolis, Minn. 1904

BATES, J. T., Assistant Professor of Mechanical Engineering, Iowa State College, Ames, Ia. 1912

BATES, ONWARD, Civil Engineer, 332 S. Michigan Ave., Chicago, Ill. 1903

BAUER, F. S., Assistant Professor of Mechanical Engineering, University of Colorado, Boulder, Colo. 1914

BAUER, W. C., Professor of Electrical Engineering, Northwestern University, Evanston, Ill. 1910

BEAVER, J. L., Senior Instructor in Electrical Engineering, Drexel Institute, Philadelphia, Pa. 1914

BECKER, A. J., Professor of Applied Mathematics, University of North Dakota, Grand Forks, N. D. 1907

BEGGS, G. E., Assistant Professor of Civil Engineering, Princeton University, Princeton, N. J. 1915

BELL, J. M., Professor of Physical Chemistry, University of North Carolina, Chapel Hill, N. C. 1914

BELLIS, A. E., Professor of Physics, University of Wyoming, Laramie, Wyo. 1914

BELSKY, C. J., 1367 Jackson St., Dubuque, Ia. 1913

BENEDICT, B. W., Director of Shop Laboratories, University of Illinois, Urbana, Ill. 1912

BENEDICT, H. G., Industrial Engineer, Detroit, Mich. 1913

BENEDICT, H. Y., Professor of Applied Mathematics and Dean of the College of Arts, University of Texas, Austin, Texas..... 1906

BENJAMIN, C. H., Dean of the Schools of Engineering, Purdue University, LaFayette, Ind. 1893

BENKERT, H. N., Professor of Civil Engineering, Drexel Institute, Philadelphia, Pa. 1909

BENNETT, EDW., Professor of Electrical Engineering, University of Wisconsin, Madison, Wis. 1909

BENTON, J. R., Professor of Physics and Electrical Engineering, and Dean of the College of Engineering, University of Florida, Gainesville, Fla. 1905

BENZENBERG, G. H., Consulting Civil Engineer, Retired, 255 Greenbush St., Milwaukee, Wis. 1907

BERARD, S. J., Instructor in Machine Design, Yale University, New Haven, Conn. 1912

BERENTS, H., Engineer in Chief, Anhui Railways, Wuhu, China.... 1911

BERG, E. J., Professor of Electrical Engineering, Union University, Schenectady, N. Y. 1910

BERGER, F. A., Assistant Professor of Mechanical Engineering, Washington University, St. Louis, Mo. 1910

BERRESFORD, A. W., Vice-President and General Manager, The Cutler-Hammer Mfg. Co., Milwaukee, Wis. 1911

BERRY, W. J., Assistant Professor of Mathematics, Polytechnic Institute of Brooklyn, Brooklyn, N. Y..... 1910

BETTS, PHILANDER, Chief Engineer, Public Utility Commission of New Jersey, Newark, N. J. 1907

BEVAN, W. A., Assistant Professor of Physics, Oregon Agricultural College, Corvallis, Ore. 1915

BEYER, S. W., Vice-Dean of the Division of Engineering and Professor of Geology and Mining Engineering, Iowa State College, Ames, Ia. 1899

BIEGLER, P. S., Assistant Professor of Electrical Engineering, University of Illinois, Urbana, Ill. 1908

BIERMA, A. G., Professor in charge of Mechanical Engineering, University of Detroit, Detroit, Mich. 1913

BIGGIN, Frederic C., Professor of Architectural Engineering, Oklahoma A. & M. College, Stillwater, Okla. 1912

BIRD, H. C., Associate Professor of Civil Engineering, Pennsylvania Military College, Chester, Pa. 1914

BIRD, R. M., Professor of Chemistry, University of Virginia, University, Va. 1915

BIRD, WM. W., Professor of Mechanical Engineering, and Director of the Washburn Shops, Worcester Polytechnic Institute, Worcester, Mass. 1910

BISHOP, C. T., Assistant Professor of Civil Engineering, Yale University, New Haven, Conn. 1912

BISHOP, F. L., Dean School of Engineering, Professor of Physics, University of Pittsburgh, Pittsburgh, Pa. 1907

BISSELL, G. W., Dean of Engineering and Professor of Mechanical Engineering, Michigan Agricultural College, East Lansing, Mich. 1894

BITTING, H. S., President of the Williamson Free School of Mechanical Trades, Williamson School, Delaware Co., Pa. 1909

BLACK, H. F., Professor of Mathematics and Assistant Professor of Engineering, Valparaiso University, Valparaiso, Ind. 1915

BLACK, R. M., Assistant Professor of Mining, University of Pittsburgh, Pittsburgh, Pa. 1912

BLACKBURN, H. W., Instructor in Mechanical Engineering, and Superintendent of Buildings and Grounds, University of Vermont, Burlington, Vt. 1912

BLAIR, T. A., Draftsman, Robt. McF. Doble, Consulting Engineer, Placerville, Colo. 1913

BLAKESLEE, D. W., 501 Sheridan Ave., Pittsburgh, Pa. 1914

BLANCHARD, A. H., Professor in charge of Graduate Course in Highway Engineering, Columbia University, Practicing Highway Engineer, New York, N. Y. 1902

BLAND, J. C., Engineer of Bridges, Pennsylvania Lines West of Pittsburgh, Pittsburgh, Pa. 1911

BLESSING, G. F., Professor of Mechanical Engineering, in charge of Engineering, Swarthmore College, Swarthmore, Pa. 1910

BLISS, C. P., Professor of Mechanical Engineering, New York University, New York, N. Y. 1915
BLOEMKER, CHAS. W., Instructor in Forging, University of Pennsylvania, Philadelphia, Pa. 1912
BLUME, L. F., Electrical Engineer, General Electric Co., Pittsfield, Mass. 1911
BOARDMAN, H. P., Professor of Civil Engineering, University of Nevada, Reno, Nev. 1914
BOARDMAN, H. S., Dean of the College of Technology and Professor of Civil Engineering, University of Maine, Orono, Me. 1903
BOGARD, FRANK, Supt., Mechanical and Electrical Engineering Courses, Louisiana Industrial Institute, Ruston, La. 1914
BOLTON, F. C., Professor of Electrical Engineering, Texas A. and M. College, College Station, Texas 1910
BOOMSLITER, G. P., Associate in Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. 1912
BOOTHROYD, S. L., Associate Professor of Mathematics, University of Washington, Seattle, Wash. 1908
BOWERMAN, M. R., Instructor in Machine Design, Kansas State Agricultural College, Manhattan, Kans. 1909
BOYD, ALFRED, Dean, School of Engineering, and Professor of Civil Engineering, Oklahoma A. & M. College, Stillwater, Okla. 1909
BOYD, J. E., Professor of Mechanics, Ohio State University, Columbus, O. 1907
BOYER, F. Q., Engineer of Tests, The H. B. Smith Co., Westfield, Mass. 1912
BOYLE, A. C., JR., Professor of Mining Engineering and Geology, University of Wyoming, Laramie, Wyo. 1911
BOZELL, H. V., Professor of Electrical Engineering and Director School of Electrical Engineering, University of Oklahoma; Norman, Okla. 1912
BRACKETT, B. B., Professor of Electrical Engineering, South Dakota State College of A. and M. Arts, Brookings, S. D. 1906
BRADFORD, J. N., Professor of Architecture and University Architect, The Ohio State University, Columbus, O. 1896
BRATTON, W. A., Professor of Mathematics and Dean of Science Group, Whitman College, Walla Walla, Wash. 1911
BRAUNE, G. M., Assistant Professor in Civil Engineering, University of Cincinnati, Cincinnati, Ohio 1914
BRAY, G. E., Industrial Engineer, Kansas State Agricultural College, Manhattan, Kans. 1915
BRECKENRIDGE, L. P., Professor of Mechanical Engineering, Sheffield Scientific School, Yale University, New Haven, Conn. 1893

LIST OF MEMBERS.

BREED, C. B., Professor of Railroad Engineering, Massachusetts Institute of Technology, Boston, Mass. 1904

BREHMER, W. G. H., Instructor in Mechanical Engineering, University of Pennsylvania, Philadelphia, Pa. 1914

BRIDGMAN, J. N., Associate Professor of Civil Engineering, University of Nebraska, Lincoln, Neb. 1913

BRINGHURST, J. H., Instructor in Civil Engineering, University of Michigan, Ann Arbor, Mich. 1915

BRODIE, HUGH, Assistant Professor of Surveying, University of Michigan, Ann Arbor, Mich. 1915

BROOKE, W. E., Head of Department of Mathematics and Mechanics, College of Engineering, University of Minnesota, Minneapolis, Minn. 1902

BROOKS, J. ANSEL, Associate Professor of Mechanics and Mechanical Drawing, Brown University, Providence, R. I. 1904

BROOKS, J. P., President, Clarkson College of Technology, Potsdam, N. Y. 1898

BROOKS, MORGAN, Professor of Electrical Engineering, University of Illinois, Urbana, Ill. 1899

BROUEN, J. M., Professor of Civil Engineering, University of South Dakota, Vermillion, S. D. 1916

BROWN, A. I., Instructor in Mechanical Engineering, The Ohio State University, Columbus, O. 1914

BROWN, CARROL G., Instructor in Electrical Engineering, Cornell University, Ithaca, N. Y. 1914

BROWN, CHAS. B., Professor of Railroad Engineering, University of Maine, Orono, Me. 1912

BROWN, F. D., Consulting Engineer, City Hall, Shawnee, Okla. ... 1912

BROWN, F. L., Assistant Professor of Mechanics, University of Kansas, Lawrence, Kans. 1915

BROWN, HENRY B., President, Valparaiso University, Valparaiso, Ind., ... 1908

BROWN, (MRS.) KATHARINE D., Professor of Technical English, Drexel Institute, Philadelphia, Pa. 1914

BROWN, S. L., Adjunct Professor of Physics, University of Texas, Austin, Tex. 1914

BROWNE, EDWARD T., Instructor in Mathematics, University of Virginia, University, Va. 1915

BROWNE, WM. HAND, Jr. Professor of Physics and Electrical Engineering, North Carolina College of A. and M. Arts, West Raleigh, N. C. 1899

BRUEGEL, A. T., Secretary, The Hess-Bright Mfg. Co., Front St. and Erie Ave., Philadelphia, Pa. 1900

BRYANS, W. R., Associate Professor in the School of Applied Science, New York University, New York, N. Y. 1908
BRYANT, J. M., Professor of Electrical Engineering, University of Texas, Austin, Tex. 1910
BRYDONE-JACK, E. E., Professor of Civil Engineering, University of Manitoba; Winnipeg, Man. 1902
BUCK, A. M., Assistant Professor of Railway Electrical Engineering, University of Illinois, Urbana, Ill. 1910
BUMP, M. R., General Manager, Empire District Electrical Co., Chief Engineer, Henry H. Doherty & Co., 60 Wall St., New York, N. Y. 1907
BURGER, W. H., Professor of Civil Engineering, Northwestern University, Evanston, Ill. 1910
BURGESS, C. F., Chemical Engineer and President of C. F. Burgess Laboratories, Madison, Wis. 1896
BURNSIDE, C. H., Assistant Professor of Mechanics, Columbia University, New York, N. Y. 1910
BURPEE, F. E., Professor of Mechanical Engineering, Bucknell University, Lewisburg, Pa. 1910
BURR, W. H., Professor of Civil Engineering, Columbia University, New York, N. Y. 1893
BURSLEY, J. A., Junior Professor of Mechanical Engineering, University of Michigan, Ann Arbor, Mich. 1910
BURT, H. J., Structural Engineer, Holabird & Roche, Architects, 1027 Elmwood Ave., Wilmette, Ill. 1910
BURTON, A. E., Professor of Topographical Engineering, in charge of Department of Drawing, and Dean of the Massachusetts Institute of Technology, Boston, Mass. 1904
BUTLER, G. M., Dean, Colleges of Mines and Engineering, University of Arizona, Tucson, Ariz. 1916
BUTTERFIELD, A. D., Professor of Mathematics and Geodesy, Worcester Polytechnic Institute, Worcester, Mass. 1908
BUYERS, A. S., 2d Lieutenant, C. A. C., U. S. A., Fort Jay, Governors Island, N. Y. 1912
BUYERS, D. E., Sterling, Ill. 1914
CAJORI, FLORIAN, Dean of the Department of Engineering, Professor of Mathematics, Colorado College, Colorado Springs, Colo. 1904
CALDERWOOD, J. P., Associate Professor of Mechanical Engineering, Pennsylvania State College, State College, Pa. 1909
CALDWELL, EDWARD, Treasurer of the McGraw-Hill Book Co., Inc., 239 W. 39th St., New York, N. Y. 1905
CALDWELL, F. C., Professor of Electrical Engineering, The Ohio State University, Columbus, O. 1897

CALLAGHAN, R. T., Professor of Civil Engineering, Christian Brothers College, St. Louis, Mo. 1914

CALLAN, J. A. C., Instructor in Civil Engineering and Drawing, Union University, Schenectady, N. Y., Assistant Engineer, N. Y. State Dept. Highways 1909

CALNAN, J. W., Instructor in charge of Department of Chemistry, Franklin Union, Boston, Mass. 1910

CAMP, W. M., Editor *Railway Review*, 7740 Union Ave., Chicago, Ill. 1904

CANNON, J. H., Assistant Professor of Electrical Engineering, A. & M. College of Texas, College Station, Tex. 1915

CARLSON, W. W., Associate Professor of Shop Practice and Superintendent of Shops, Kansas State Agricultural College, Manhattan, Kans. 1912

CARNEGIE, ANDREW, 2 E. 91st St., New York, N. Y. (Life Member). 1911

CARPENTER, DAN E., Manager of Education, International Textbook Co., Scranton, Pa. 1915

CARPENTER, H. D., 10759 Prospect Ave., Chicago, Ill. 1910

CARPENTER, L. G., Consulting Engineer, 707 First National Bank Bldg., Denver, Colo. 1895

CARPENTER, RANDLE C., Professor of Mechanical Engineering, Mississippi A. & M. College, Agricultural College, Miss. 1914

CARPENTER, R. C., Professor of Experimental Engineering, Cornell University, Ithaca, N. Y. 1910

CARROLL, H. H., Assistant Professor Technical Drawing, Tufts College, Tufts College, Mass. 1911

CARSON, W. W., Professor of Civil Engineering, University of Tennessee, Knoxville, Tenn. 1894

CARTER, CHAS. J., Instructor in Machine and Foundry Practice, University of Maine, Orono, Me. 1913

CARTER, H. G., Assistant Electrical Engineer, Public Works Department, Sydney, New South Wales, Australia 1914

CARTY, J. J., Chief Engineer, American Telephone and Telegraph Co., 15 Dey St., New York, N. Y. 1907

CASE, G. W., Associate Professor of Sanitary Engineering, University of Pittsburgh, Pittsburgh, Pa. 1914

CATLIN, W. G., Instructor in Electrical Engineering, Cornell University, Ithaca, N. Y. 1912

CAUGHEY, R. A., Assistant Professor Civil Engineering, Pennsylvania State College, State College, Pa. 1911

CHANDLER, E. F., Professor of Civil Engineering, and in charge of Civil Engineering Course, University of North Dakota, University, N. D. 1907

CHANEY, G. A., Associate Professor of Mathematics, Iowa State College, Ames, Ia. 1914

CHARAVAY, M. A., Assistant Professor of Mechanical Engineering, Stevens Institute of Technology, Hoboken, N. J. 1914

CHARLES, ROLLIN L., Assistant Professor of Physics, Lehigh University, South Bethlehem, Pa. 1914

CHASE, C. H., Professor of Steam Engineering, Tufts College, Tufts College, Mass. 1900

CHASE, L. W., Professor of Agricultural Engineering, University of Nebraska, Lincoln, Nebr. 1910

CHATBURN, G. R., Professor and Head of the Department of Applied Mechanics and Machine Design, University of Nebraska, Lincoln, Nebr. 1899

CHEDSEY, W. R., Assistant Professor of Mining, Colorado School of Mines, Golden, Colo. 1915

CHESNEY, C. C., Manager and Chief Engineer, General Electric Co., Pittsfield, Mass. 1911

CHILDS, A. T., Associate Professor of Electrical Engineering, University of Maine, Orono, Me. 1912

CHRISTENSEN, GEO. L., Professor of Mechanical Engineering, Michigan College of Mines, Houghton, Mich. 1905

CHRISTIAN, J. W., Instructor in Mechanical Engineering, University of Colorado, Boulder, Colo. 1914

CHURCH, E. F., JR., Professor of Machine Design and Construction, West Virginia University, Morgantown, W. Va. 1910

CHURCH, I. P., Professor of Applied Mechanics and Hydraulics, Cornell University, Ithaca, N. Y. 1910

CLAPP, W. H., Associate Professor of Mechanism and Machine Design, Throop College of Technology, Pasadena, Calif. 1914

CLARK, J. C., Assistant Professor of Electrical Engineering, Leland Stanford Jr. University, Stanford University, Calif. 1912

CLARKSON, R. P., Professor of Engineering, Acadia University, Wolfville, N. S. 1915

CLEGHORN, M. P., Associate Professor of Mechanical Engineering, Iowa State College, Ames, Ia. 1910

CLIFFORD, H. E., Gordon McKay Professor of Electrical Engineering, Harvard University and Massachusetts Institute of Technology, Cambridge, Mass. 1907

CLIFTON, H. T., Teacher in Physics and Geology, and Registrar, Pasadena High School, Pasadena, Calif. 1907

CLOKE, PAUL, Professor of Physics, Clarkson College of Technology, Potsdam, N. Y. 1911

COBB, COLLIER, Professor and Head of the Department of Geology and Mineralogy, University of North Carolina, Chapel Hill, N. C. 1916

COBB, H. E., Professor and Head of Department of Mathematics, Lewis Institute, Chicago, Ill. 1908

COCKBURN, J. R., Assistant Professor of Descriptive Geometry, University of Toronto, Toronto, Ont., Can. 1914

CODDINGTON, E. F., Professor of Mechanics, The Ohio State University, Columbus, O. 1911

CODWISE, H. R., Assistant Professor of Civil Engineering, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. 1914

COFFIN, C. A., Chairman, Board of Directors, General Electric Co., 30 Church St., New York, N. Y. 1911

COMSTOCK, C. E., Professor of Mathematics, Bradley Polytechnic Institute, Peoria, Ill. 1909

COMSTOCK, E. H., Professor of Mine Plant and Mechanics, School of Mines, University of Minnesota, Minneapolis, Minn. 1907

COMSTOCK, F. M., Professor of Descriptive Geometry, Case School of Applied Science, Cleveland, O. 1907

CONKLING, L. D., Professor of Civil Engineering, Montana State A. & M. College, Bozeman, Mont. 1912

CONNER, S. L., Assistant Professor of Railroad Engineering, Tufts College, Tufts College, Mass. 1912

CONRAD, L. E., Professor of Civil Engineering, Kansas State Agricultural College, Manhattan, Kans. 1908

CONSTANT, F. H., Professor of Civil Engineering, Princeton University, Princeton, N. J. 1896

COOK, A. L., Head of the Dept. of Applied Electricity, Pratt Institute, Brooklyn, N. Y. 1913

COOK, PAUL, Secretary and Treasurer of W. & L. E. Gurley, and Treasurer of Rensselaer Polytechnic Institute, Troy, N. Y. .. 1913

COOK, ROBERTSON, Professor of Experimental Engineering, South Dakota State College, Brookings, S. D. 1913

COOKE, M. L., Director, Department Public Works, 216 City Hall, Philadelphia, Pa. 1910

COOLEY, M. E., Professor of Mechanical Engineering and Dean of the Colleges of Engineering and Architecture, University of Michigan, Ann Arbor, Mich. 1893

COOMBS, S. E., Assistant Engineer, N. Y. C. & H. R. R. R. and Instructor in Mechanical Drawing, New York Evening High School for Men, Room 5944, 70 East 45th St., New York, N. Y. 1913

COOPER, F. E., Management Engineer, with Boyden & Steacie, Boston, Mass. 1915

COOPER, F. L., Instructor in Physics, Yale University, New Haven, Conn. 1912
COPPERSMITH, C. W., Instructor in Mechanical Engineering, Case School of Applied Science, Cleveland, O. 1915
CORBETT, L. J., Professor of Electrical Engineering, University of Idaho, Moscow, Ida. 1912
CORNELL, W. R., Instructor in Applied Mechanics, Cornell University, Ithaca, N. Y. 1910
CORP, C. I., Associate Professor of Hydraulic Engineering, University of Wisconsin, Madison, Wis. 1910
CORTHELL, ELMER L., Civil and Consulting Engineer, 149 Broadway, New York, N. Y. 1895
CORY, C. L., Dean, College of Mechanics and Professor of Electrical Engineering, University of California, Berkeley, Calif. 1915
CORY, M. M., Assistant Professor of Electrical Engineering, Michigan Agricultural College, East Lansing, Mich. 1912
COSTELLOE, M. F. P., Associate Professor Agricultural Engineering, and Acting Chairman for the Dept. of Agricultural Engineering, Iowa State College, Ames, Ia. 1915
COSTER, E. L., Literary Engineer, 25 Broad St., Room 1440, New N. Y. (Life Member) 1911
COVELL, G. A., Dean of the School of Engineering and Mechanic Arts, Oregon Agricultural College, Corvallis, Ore. 1908
COX, J. J., Assistant Professor of Civil Engineering, in charge of Highway Engineering, University of Michigan, Ann Arbor, Mich. 1915
CRAIG, OLLISON, Laclede Christy Clay Products Co., St. Louis, Mo. . 1913
CRANDALL, CARL, Instructor in Civil Engineering, Cornell University, Ithaca, N. Y. 1914
CRANDALL, CHAS. L., Professor Emeritus of Railroad Engineering, Cornell University, Ithaca, N. Y. 1893
CRANE, H. G., Instructor in Electrical Engineering, Harvard University, Cambridge, Mass. 1908
CRATHORNE, A. R., Associate in Mathematics, University of Illinois, Urbana, Ill. 1911
CRAWFORD, D. F., General Superintendent Motive Power, Pennsylvania Lines, and Director of Railway Mechanical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1914
CRAWFORD, I. C., 1940 15th St., Boulder, Colo. 1913
CREAGMILE, WM. B., School of Engineering, Drexel Institute, Philadelphia, Pa. 1909
CREIGHTON, E. E. F., Consulting Engineer, General Electric Co., Union University, Schenectady, N. Y. 1910

CREIGHTON, W. H. P., Dean of the College of Technology and Professor of Mechanical and Sugar Engineering, Tulane University, New Orleans, La. 1893

CRENSHAW, B. H., Professor of Mathematics, Alabama Polytechnic Institute, Auburn, Ala. 1894

CROCKETT, CHAS. W., Professor of Mathematics and Astronomy, Rensselaer Polytechnic Institute, Troy, N. Y. 1912

CROSBY, W. W., Consulting Engineer and Chief Engineer, Maryland Geological and Economic Survey, 1431 Munsey Bldg., Baltimore, Md. 1911

CROSS, HARDY, Assistant Professor of Civil Engineering, Brown University, Providence, R. I. 1912

CROUCH, C. H., Professor of Mechanical Engineering and Dean of the College of Mechanical and Electrical Engineering, University of North Dakota, Grand Forks, N. D. 1907

CROW, RAY, 603 W. Camanche St., Norman, Okla. 1913

CROWE, C. P., 1627 N. High St., Columbus, O. 1913

CRUM, R. W., Associate Professor of Experimental Engineering, Iowa State College, Ames, Ia. 1912

CULLIMORE, A. R., Professor of Civil Engineering and Dean of the College of Industrial Science, The Toledo University, Toledo, O. 1914

CURTIS, L. F., Instructor in Electrical Engineering, University of Washington, Seattle, Wash. 1913

DADOURIAN, H. M., Instructor in Physics, Yale University, New Haven, Conn. 1913

DAGGETT, P. H., Professor of Electrical Engineering, and Acting Dean of the School of Applied Science, University of North Carolina, Chapel Hill, N. C. 1910

DALAKER, H. H., Assistant Professor of Mathematics, in Engineering College, University of Minnesota, Minneapolis, Minn. 1909

DALBURG, F. A., Superintendent, Arctic Coal Co., Advent Bay, Spitsburgen, Pa. 1908

DALTON, B. J., Assistant District Engineer, Interstate Commerce Commission, Inter State Bldg., Kansas City, Mo. 1907

DAMON, GEORGE A., Dean, Throop College of Technology, Pasadena, Calif. 1911

DANFORTH, R. E., General Manager, Public Service Railway Co., Newark, N. J. 1910

DANFORTH, R. H., Professor of Mechanics and Hydraulics, Case School of Applied Science, Cleveland, O. 1914

DANIELS, JOSEPH, Assistant Professor of Mining Engineering and Metallurgy, University of Washington, Seattle, Wash. 1910

DARGAN, F. T., Professor of Electrical Engineering, Clemson A. & M. College of South Carolina, Clemson College, S. C. 1912

DATES, H. B., Professor of Electrical Engineering, Case School of Applied Science, Cleveland, O. 1904

DAVIDSON, J. B., Professor of Agricultural Engineering, University Farm, University of California, Davis, Cal. 1915

DAVIDSON, M. W., Professor of Mechanical Engineering, University of South Dakota, Vermillion, S. D. 1916

DAVIS, E. W., Dean College of Arts and Science, and Head of Department of Mathematics, University of Nebraska, Lincoln, Nebr. 1902

DAVIS, GEO. JACOB, JR., Dean and Professor of Civil Engineering, University of Alabama, University, Ala. 1913

DAVIS, JAS. C., Assistant Professor of Mechanical Drawing, Worcester Polytechnic Institute, Worcester, Mass. 1909

DAVIS, JOHN C., Dean of the College of Applied Science and Engineering, Marquette University, Milwaukee, Wis. 1908

DAVIS, N. F., Professor of Mathematics, Emeritus, Brown University, Providence, R. I. 1910

DAVIS, R. E., Instructor in Civil Engineering, University of Illinois, Urbana, Ill. 1913

DAVIS, R. P., Professor of Structural and Hydraulic Engineering, West Virginia University, Morgantown, W. Va. 1912

DAVOUD, V. Y., Electrical and Mechanical Engineer, The Telluride Power Co., Provo, Utah. 1911

DAWES, C. L., Instructor in Electrical Engineering, Harvard University, Cambridge, Mass. 1915

DAY, CHARLES, Manager of the firm of Day & Zimmerman, Engineers, 608 Chestnut St., Philadelphia, Pa. 1911

DEARBORN, C. S., Professor of Mechanical Engineering, Montana State College of A. and M. Arts, Bozeman, Mont. 1910

DEEDS, EDW. A., President, The Dayton Engineering Laboratories, Dayton, O. 1911

DEFOE, L. M., Professor of Mechanics, University of Missouri, Columbia, Mo. 1904

DEIMEL, R. F., Assistant Professor of Mechanics, Stevens Institute of Technology, Hoboken, N. J. 1909

DELAY, F. A., Head Instructor, Chicago Central Station Institute, 72 W. Adams St., Chicago, Ill. 1909

DEMOREST, D. J., Professor of Metallurgy, The Ohio State University, Columbus, O. 1913

DENN, H. H., Senior Instructor in Mechanical Drawing, Drexel Institute, Philadelphia, Pa. 1914

DENNISON, B. C., Assistant Professor of Electrical Engineering, Carnegie Institute of Technology, Pittsburgh, Pa. 1912

DENNY, GEO. H., President, University of Alabama, University, Ala. 1913
DENT, J. A., Associate in Mechanical Engineering, University of Illinois, Urbana, Ill. 1911
DENTON, F. W., General Manager of Mines, Copper Range Consolidated Co., Painesdale, Mich. 1894
DEPUY, C. E., Professor of Machine Construction, Lewis Institute, Chicago, Ill. 1908
DERLETH, CHAS., JR., Professor of Civil Engineering and Dean of the College of Civil Engineering, University of California, Berkeley, Calif. 1904
DESCHWEINITZ, P. B., Professor of Machine Design, Lehigh University, South Bethlehem, Pa. 1912
DETURK, J. A., Instructor in Machine Shop Practice, University of Illinois, Urbana, Ill. 1915
DIBERT, H. M., Civil Engineer with W. & L. E. Gurley, Troy, N. Y. 1913
DICKERSON, H. S., Assistant Professor of Mechanical Engineering, Purdue University, LaFayette, Ind. 1912
DICKINSON, L. P., Professor of Physics and Electrical Engineering, Rhode Island State College, Kingston, R. I. 1914
DIEDERICHS, HERMAN, Professor of Experimental Engineering, Cornell University, Ithaca, N. Y. 1915
DIEMER, HUGO, Professor of Industrial Engineering, Pennsylvania State College, State College, Pa. 1902
DIETZ, J. W., Manager, Educational Department, Western Electric Co. Inc., Hawthorne Station, Chicago, Ill. 1911
DILLINGHAM, ALEXANDER, Assistant Professor of Mathematics, Tufts College, Tufts College, Mass. 1912
DOBBS, F. E., Instructor in Estimating and Practical Mathematics, Wentworth Institute, Boston, Mass. 1912
DOGGETT, L. A., Professor of Electrical Engineering, U. S. Naval Academy, Annapolis, Md. 1914
DOHERTY, H. L., President, The Denver Gas and Electric Co., 60 Wall St., New York, N. Y. 1904
DOLAND, J. J., 3132 W. 22d Ave., Denver, Colo. 1914
DOMONOSKE, ARTHUR B., 1172 C St., Hayward, Cal. 1913
DOOLEY, C. R., Educational Director, Westinghouse Electric and Mfg. Co., and President of the Casino Technical Night School, East Pittsburgh, Pa. 1907
DORSEY, J. W., Assistant Professor of Electrical Engineering, University of Manitoba, Winnipeg, Man. 1909
DOUGHERTY, H. R., Professor and Head of Department of Mathematics, New York Military Academy, Cornwall-on-Hudson, N. Y. 1915

DOUGHERTY, N. W., Assistant Professor of Civil Engineering, George Washington University, Washington, D. C. 1914
DOUGLAS, J. F. H., Instructor in Physics, Iowa State College, Ames, Ia. 1910
DRAGOUN, F. A., Instructor in Civil Engineering, Iowa State College, Ames, Ia. 1915
DRANE, W. H., Professor of Mathematics and Engineering, Cumberland University, Lebanon, Tenn. 1903
DREYER, C. F., Head of the Department of Mechanical Engineering, Escola de Engenharia, Porto Alegre, Brazil 1913
DRINKER, H. S., President, Lehigh University, South Bethlehem, Pa. 1905
DROWNE, H. B., Instructor in Highway Engineering, Columbia University, New York, N. Y.; Engineer, Lane Construction Corporation, Meriden, Conn. 1908
DUCEY, E. J., Instructor in Civil Engineering, Pennsylvania State College, State College, Pa. 1915
DUFF, C. M., Hallsville, Mo. 1912
DUFOUR, F. O., Senior Structural Engineer, Division of Valuation, Interstate Commerce Commission, 914 Karpen Bldg., Chicago, Ill. 1906
DUKES, R. G., Professor of Applied Mechanics, Purdue University, LaFayette, Ind. 1907
DUNCAN, LOUIS, with the Firm of Duncan, Young & Co., Inc., 50 Church St., New York, N. Y. 1904
DUNCAN, M. M., Agent, Cleveland Cliffs Iron Co., and Member Board of Control, Michigan College of Mines, Ishpeming, Mich. 1905
DUNHAM, HEBER, Assistant Professor of Engineering Drawing, New York University, New York, N. Y. 1914
DUNKIN, W. V., Chief Draftsman, Experimental Department, Deere & Co., 1656 30th Ave., Moline, Ill. 1908
DUNMORE, G. B., Professor of Drafting, Whitman College, Walla Walla, Wash. 1911
DUNN, GANO, President, J. G. White Engineering Corporation, 43 Exchange Place, New York, N. Y. 1911
DUNSTAN, E. V., Professor of Civil Engineering, George Washington University, Washington, D. C. 1909
DUPONT, T. C., Wilmington, Del. (Life Member) 1910
DURAND, W. F., Professor of Mechanical Engineering, Leland Stanford Junior University, Stanford University, Calif. 1899
DURHAM, GLEN G., Salesman, 616 Heed Bldg., Philadelphia, Pa. .. 1913
DWIGHT, H. B., Professor of Mechanics, University of Oklahoma, Norman, Okla. 1912
DYCHE, H. E., Assistant Professor of Electrical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1914

DYER, F. C., Lecturer in Mining Engineering, Faculty of Applied Science, University of Toronto, Toronto, Ont., Canada 1913

DYSART, P. M., Physics Dept., Pittsburgh Central High School, Pittsburgh, Pa. 1911

EARLE, S. B., Director of the Engineering Department, and Professor of Mechanical Engineering, Clemson Agricultural College of South Carolina, Clemson College, S. C. 1912

EARLE, S. C., Professor of English, Engineering School, Tufts College, Mass. 1909

EASBY, WM., JR., Professor of Municipal Engineering, University of Pennsylvania, Philadelphia, Pa. 1908

EATON, J. S., Instructor in Mechanical Practice, University of Vermont, Burlington, Vt. 1914

EBAUGH, W. C., Consulting Chemist, 809 Kearns Bldg., Salt Lake City, Utah 1908

ECKEL, C. L., Instructor in Civil Engineering, University of Colorado, Boulder, Colo. 1914

ECKHARD, G. F., Professor of Structural Engineering, University of Vermont, Burlington, Vt. 1910

EDDISON, WM. B., Assistant in Department of Mechanical Engineering, Columbia University, New York, N. Y. 1914

EDDY, C. L., Assistant Professor of Railway Engineering, Case School of Applied Science, Cleveland, O. 1910

EDDY, H. T., Dean of the Graduate School and Professor of Mathematics and Mechanics, Emeritus, College of Engineering, University of Minnesota, Minneapolis, Minn. 1893

EDGECOMB, R. E., Assistant Professor of Civil Engineering, Oregon Agricultural College, Corvallis, Ore. 1912

EDMANDS, S. S., Director, School of Science and Technology, Pratt Institute, Brooklyn, N. Y. 1903

EDWARDS, EVAN J., Engineering Department, National Lamp Works, General Electric Co., Nela Park, Cleveland, O. 1911

EDWARDS, WM. M., Professor of Civil and Municipal Engineering, University of Alberta, Edmonton South, Alberta, Canada 1914

EDWARDS, W. W., Head of Dept. of Applied Mechanics, Wentworth Institute, Boston, Mass. 1913

EGBERT, H. V., Teaching Mathematics, West Technical High School, Cleveland, O. 1907

EHLERS, H. E., Professor of Experimental Engineering, University of Pennsylvania, Philadelphia, Pa. 1912

EINSTEIN, A. C., Vice President and General Manager, Union Electric Light and Power Co., St. Louis, Mo. 1911

ELLIOTT, B. G., Associate Professor Mechanical Engineering, University of Nebraska, Lincoln, Neb. 1912

ELLIS, FREDERICK, Instructor in Wood Working, Technical High School, Edmonton, Alberta, Canada 1912

ELLIS, W. T., Associate Professor of Machine Design and Applied Mechanics, North Carolina College of A. and M. Arts, West Raleigh, N. C. 1910

ELY, JOHN A., Professor of Surveying and Engineering, St. Johns University, Shanghai, China 1914

EMERSON, WM. H., Dean and Professor of Chemistry, Georgia School of Technology, Atlanta, Ga. 1912

EMORY, F. L., Professor of Mechanics and Applied Mathematics, West Virginia University, Morgantown, W. Va. 1894

EMRICK, PAUL S., Instructor in Electrical Engineering, Purdue University, LaFayette, Ind. 1914

EMSWILER, J. E., Assistant Professor of Mechanical Engineering, University of Michigan, Ann Arbor, Mich. 1912

ENDSLEY, L. E., Professor of Railway Mechanical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1907

ENGEL, GODFREY, Engineer of Construction, American Sugar Refining Co. of New York, Brooklyn, N. Y. 1915

ENGER, M. L., Assistant Professor of Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. 1907

ENNIS, W. D., Professor of Mechanical Engineering, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. 1907

ENO, F. H., Professor of Municipal Engineering, The Ohio State University, Columbus, O. 1907

ENSIGN, N. E., Associate in Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. 1915

ESTY, WILLIAM, Professor of Electrical Engineering, Lehigh University, South Bethlehem, Pa. 1898

ETHERTON, W. A., Professor of Rural Architecture, Kansas State Agricultural College, Manhattan, Kans. 1915

EVANS, F. H., Assistant Professor of Manual Arts and Principal of Vocational School, Bradley Polytechnic Institute, Peoria, Ill. 1907

EVANS, H. B., Professor of Mathematics, University of Pennsylvania, Philadelphia, Pa. 1908

EVANS, H. S., Professor of Electrical Engineering, University of Colorado, Boulder, Colo. 1905

EVINGER, M. I., Associate Professor of Civil Engineering, Iowa State College, Ames, Ia. 1909

EWING, D. D., Assistant Professor of Electrical Engineering, Purdue University, W. LaFayette, Ind. 1910

EYRE, T. T., Assistant Professor of Mechanical Engineering, Purdue University, LaFayette, Ind. 1909

FAIG, J. T., Professor of Mechanical Engineering, University of Cincinnati, Cincinnati, O. 1899
FARNHAM, C. S., Assistant Professor of Civil Engineering, Yale University, New Haven, Conn. 1908
FARWELL, S. P., Chief, Service Division, State Public Utilities Commission of Illinois, Springfield, Ill. 1911
FAWKES, G. W. H., Instructor in Wood Working, University of Pennsylvania, Philadelphia, Pa. 1912
FELGAR, JAS. H., Dean of the College of Engineering, University of Oklahoma, Norman, Okla. 1912
FERGUSON, O. J., Professor of Electrical Engineering, Universty of Nebraska, Lincoln, Nebr. 1908
FERMIER, E. J., Professor of Mechanical Engineering, Texas A. and M. College, College Station, Texas 1903
FERNALD, R. H., Whitney Professor of Dynamical Engineering, University of Pennsylvania, Philadelphia, Pa. 1899
FERRIS, C. E., Professor of Mechanical Engineering and Dean of Engineering, University of Tennessee, Knoxville, Tenn. 1913
FESSENDEN, E. A., Associate Professor of Mechanical Engineering, University of Missouri, Columbia, Mo. 1912
FETTER, FRANK A., Professor of Economics, Princeton University, Princeton, N. J. 1915
FINCH, F. R., Assistant Professor of Descriptive Geometry and Drawing, University of Michigan, Ann Arbor, Mich. 1913
FINE, H. B., Professor of Mathematics and Dean of the Departments of Science, Princeton University, Princeton, N. J. 1909
FISH, E. H., New England Associate Editor, *American Machinist*, Worcester, Mass. 1912
FISH, F. A., Professor of Electrical Engineering, Iowa State College, Ames, Ia. 1905
FISHER, GEO. H., Manager and Editor, International Textbook Company, Scranton, Pa. 1911
FISHER, JAMES, Professor of Mathematics and Physics, Michigan College of Mines, Houghton, Mich. 1899
FISHER, R. T., Assistant Professor of Forestry, and Director of the Harvard Forestry, Harvard University, Cambridge, Mass. 1910
FISK, IRA W., Associate in Electrical Engineering, University of Illinois, Urbana, Ill. 1914
FISK, WILBUR C., President, Hudson & Manhattan R. R., (Hudson River Tunnels), 30 Church St., New York, N. Y. 1914
FITTERER, J. C., Professor of Civil and Irrigation Engineering, University of Wyoming, Laramie, Wyo. 1912
FITZGERALD, DESMOND, Consulting Engineer, 410 Washington St., Brookline, Mass. 1911

Flather, J. J., Professor of Mechanical Engineering, University of Minnesota, Minneapolis, Minn. **1893**

Fleming, V. R., Associate in Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. **1909**

Fletcher, A. B., Highway Engineer, Dept. of Engineering, State of California, Sacramento, Calif. **1913**

Fletcher, Robert, Professor of Civil Engineering, Director of Thayer School of Civil Engineering, Dartmouth College, Hanover, N. H. **1894**

Flowers, A. E., Professor of Electrical Engineering, The Ohio State University, Columbus, O. 1910

Floyd, E. V., Assistant Professor of Physics, Kansas State Agricultural College, Manhattan, Kans. 1915

Focke, T. M., Kerr Professor of Mathematics, Case School of Applied Science, Cleveland, O. **1907**

Fogg, R. J., Associate Professor of Civil Engineering, Lehigh University, South Bethlehem, Pa. 1910

Folk, J. Thomas, Instructor in Mechanical Engineering Department, Louisiana Industrial Institute, Ruston, La. 1914

Foote, F. S., Jr., Associate Professor of Railroad Engineering, University of California, Berkeley, Calif. **1910**

Foraker, F. A., Instructor in Mathematics, University of Pittsburgh, Pittsburgh, Pa. **1914**

Ford, Arthur H., Professor of Electrical Engineering, State University of Iowa, Iowa City, Ia. **1903**

Ford, H. C., Associate Professor of Civil Engineering, Iowa State College, Ames, Ia. **1907**

Forman, A. H., Assistant Professor of Experimental and Electrical Engineering, West Virginia University, Morgantown, W. Va. 1916

Foss, F. E., Professor of Civil Engineering, Cooper Union, New York, N. Y. **1893**

Foss, Martin M., Secretary, McGraw-Hill Book Co., 239 W. 39th St., New York, N. Y. 1909

Foster, E. S., with the Packard Electric Co., Warren, Ohio 1911

Foulk, C. W., Professor of Analytical Chemistry, The Ohio State University, Columbus, O. 1913

Frankforter, G. B., Professor of Chemistry and Dean of the School of Chemistry, University of Minnesota, Minneapolis, Minn. **1897**

Franklin, W. S., Professor of Physics, Lehigh University, South Bethlehem, Pa. 1900

Frary, H. D., 410 Railroad St., Urbana, Ill. 1908

FRAZER, JOHN, Dean of the Towne Scientific School and Assistant Professor of Chemistry, University of Pennsylvania, Philadelphia, Pa. 1914

FRAZIER, F. F., Assistant Professor of Civil Engineering, Kansas State Agricultural College, Manhattan, Kans. 1912

FREAR, J. B., Instructor in Engineering Mechanics and Mathematics, University of Minnesota, Minneapolis, Minn. 1911

FREEDMAN, W. H., Professor of Electrical Engineering, University of Vermont, Burlington, Vt. 1902

FREEMAN, E. H., Professor of Electrical Engineering, Armour Institute of Technology, Chicago, Ill. 1909

FREEMAN, P. J., Assistant Professor of Applied Mechanics, Kansas State Agricultural College, Manhattan, Kans. 1914

FREEMAN, W. EDWIN, Professor of Electrical Engineering, State University of Kentucky, Lexington, Ky. 1911

FRENCH, A. W., Professor of Civil Engineering, Worcester Polytechnic Institute, Worcester, Mass. 1900

FRENCH, THOS. E., Professor of Engineering Drawing, The Ohio State University, Columbus, O. 1899

FRINK, F. G., Private Practice, Eugene, Ore. 1902

FROST, A. E., Registrar, University of Pittsburgh, Pittsburgh, Pa. 1908

FROST, HARWOOD, President, Brown Portable Elevator Co., Room 1136, 10 LaSalle St., Chicago, Ill. 1907

FRY, H. P., Assistant Professor of Mechanical Drawing, Mechanical Engineering Department, University of Pennsylvania, Philadelphia, Pa. 1914

FRY, LAWFORD H., Superintendent of Product, Standard Steel Works Co., Burnham, Pa. 1911

FULLAN, M. T., Professor of Machine Design and Drawing, Alabama Polytechnic Institute, Auburn, Ala. 1915

FULLER, A. H., Professor of Civil Engineering and Dean College of Engineering, University of Washington, Seattle, Wash. 1901

FULLER, C. E., Professor of Theoretical and Applied Mechanics, Massachusetts Institute of Technology, Boston, Mass. 1907

FULTON, WM. L., Assistant Professor of Mathematics and Civil Engineering, University of Vermont, Burlington, Vt. 1912

FURMAN, FRANKLIN DER., Professor of Mechanism and Machine Design, Stevens Institute of Technology, Hoboken, N. J. 1907

GALPIN, S. L., Assistant Professor of Geology and Mining, Iowa State College, Ames, Ia. 1915

GANZ, ALBERT F., Professor of Electrical Engineering, Stevens Institute of Technology, Hoboken, N. J. 1903

GARMAN, H. O., Chief Engineer of the Indiana Public Utilities Commission, 2062 N. Meridian St., Indianapolis, Ind. 1907

GARRETT, L. E., Associate Professor of Mathematics, University of Missouri, School of Mines and Metallurgy, Rolla, Mo. 1910

GARVER, J. D., Assistant Professor of Mechanical Engineering, University of Kansas, Lawrence, Kans. 1915

GARVER, N. B., Associate in Civil Engineering, University of Illinois, Urbana, Ill. 1910

GATES, A. O., Sales Engineer, Dodge Sales & Engineering Co., Mishawaka, Ind. 1914

GAY, R. W., Professor of Civil Engineering, Mississippi A. and M. College, Agricultural College, Miss. 1907

GEARHART, W. S., State Engineer and Professor of Highway Engineering, Kansas State Agricultural College, Manhattan, Kans. 1915

GEE, E. C., Professor of Agricultural Engineering, Texas A. & M. College, College Station, Tex. 1914

GEHRING, H. A., Assistant Professor of Civil Engineering, Michigan Agricultural College, East Lansing, Mich. 1907

GEORGE, R. D., Professor of Geology and State Geologist of Colorado, University of Colorado, Boulder, Colo. 1914

GEORGE, S. G., Assistant Professor of Civil Engineering, Cornell University, Ithaca, N. Y. 1914

GIBSON, A. J., Professor of Engineering, University of Queensland, Brisbane, Queensland, Australia 1910

GIBSON, J. L., Dean of School of Arts and Sciences, Professor of Mathematics, University of Utah, Salt Lake City, Utah 1911

GIESECKE, F. E., Professor of Architecture, University of Texas, Austin, Tex. 1893

GILBRETH, F. B., President, F. B. Gilbreth, Inc., 77 Brown St., Providence, R. I. 1911

GILCHRIST, J. F., Vice President, Commonwealth Edison Co., Chicago, Ill. 1911

GILLESPIE, PETER, Associate Professor of Applied Mechanics, University of Toronto, Toronto, Ontario 1905

GILLETTE, H. P., Editor in Chief, *Engineering & Contracting*, 608 S. Dearborn St., Chicago, Ill. 1905

GILMORE, L. H., Professor of Physics, Throop College of Technology, Pasadena, Calif. 1912

GLADSON, W. N., Vice President, Dean, School of Engineering, Professor of Electrical Engineering, University of Arkansas, Fayetteville, Ark. 1903

GLASS, R. L., Instructor in Electrical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1915

GLEASON, W. A., Instructor in Civil Engineering, University of Washington, Seattle, Wash. 1913

GODDARD, A. L., Supt. of Shops and Assistant Professor of Mechanical Practice, University of Wisconsin, Madison, Wis. 1912

GODDARD, R. W., Professor of Electrical Engineering, New Mexico College of A. & M. Arts, State College, N. Mex. 1915

GODFREY, HOLLIS, President, Drexel Institute, Philadelphia, Pa..... 1913

GOETZE, F. A., Dean, Schools of Mines, Engineering and Chemistry, Columbia University, New York, N. Y. 1906

GOLDINGHAM, A. H., Sales Engineer, De la Vergne Machine Co., New York, N. Y. 1911

GOLDSMITH, G., Professor of Architecture, University of Kansas, Lawrence, Kans. 1915

GOODENOUGH, G. A., Professor of Thermodynamics, University of Illinois, Urbana, Ill. 1900

GORROW, EDW. M., Field Organizer and Assistant, Extension Division, University of Wisconsin, Appleton, Wis. 1914

GOSS, W. F. M., Dean of the College of Engineering and Director of the Engineering Experiment Station, University of Illinois, Urbana, Ill. 1893

GOULD, F. A., Professor of Civil Engineering, James Millikin University, Decatur, Ill. 1916

GOULDING, HERBERT, J., Associate Professor of Descriptive Geometry and Drawing, University of Michigan, Ann Arbor, Mich. 1914

GRAHAM, P. H., Vanderbilt Fellow in Astronomy, University of Virginia, University, Va. 1916

GRAHAM, WM. P., Professor of Electrical Engineering and Dean of the College of Applied Science, Syracuse University, Syracuse, N. Y. 1912

GRAM, L. M., Professor of Structural Engineering, University of Michigan, Ann Arbor, Mich. 1913

GRANT, E. D., Associate Professor of Mathematics and Physics, Michigan College of Mines, Houghton, Mich. 1905

GRASTY, J. S., Associate Professor of Geology, University of Virginia, University, Va. 1915

GRAY, ALEXANDER, Professor in charge of Electrical Engineering Department, Cornell University, Ithaca, N. Y. 1915

GREEN, CHAS. W., Assistant Professor of Electrical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1912

GREENE, A. M., JR., Professor of Mechanical Engineering, Rensselaer Polytechnic Institute, Troy, N. Y. 1903

GREENOUGH, MAURICE B., Instructor in Civil Engineering, Case School of Applied Science, Cleveland, Ohio..... 1912

GREGORY, W. B., Professor of Experimental Engineering, Tulane University; Irrigation Engineer, U. S. Department of Agriculture, New Orleans, La. 1907
GREINER, J. E., Consulting Engineer, Fidelity Bldg., Baltimore, Md. 1911
GREMPLE, CHAS. W., Mechanical Engineer, Saranac Lake, N. Y. .. 1911
GREVE, F. W., JR., Instructor in Hydraulic Engineering, Purdue University, LaFayette, Ind. 1912
GROAT, B. F., Hydraulic Engineer, 2400 Oliver Bldg., Pittsburgh, Pa. 1899
GRONDAHL, L. O., Assistant Professor of Physics, Carnegie Institute of Technology, Pittsburgh, Pa. 1915
GROVER, N. C., Chief Hydraulic Engineer, United States Geological Survey, Washington, D. C. 1894
GRUMBEIN, J. B., Associate Professor of Power and Experimental Engineering, West Virginia University, Morgantown, W. Va. 1912
GRUNDHOEFFER, E. F., Instructor in Mechanical Engineering, University of Colorado, Boulder, Colo. 1915
GUMMERE, H. V., Director of Evening Courses, Drexel Institute, Philadelphia, Pa. 1914
GUNTHER, CHAS. O., Professor of Mathematics, Stevens Institute of Technology, Hoboken, N. J. 1907
GUSTAFSON, LEWIS, Superintendent, The David Ranken, Jr. School of Mechanical Trades, St. Louis, Mo. 1912
GUTHE, K. E., Professor of Physics and Dean of the Graduate Department, University of Michigan, Ann Arbor, Mich. 1914
HAGERTY, C. T., Professor of Mathematics and Astronomy, New Mexico College of A. & M. Arts, State College, New Mexico.. 1911
HAIGLER, CHAS. E., Professor of Mathematics, Wentworth Institute, Boston, Mass. 1912
HALL, JAMES A., Assistant Professor of Mechanical Engineering, Brown University, Providence, R. I. 1914
HALL, P. R., Instructor in Iron Working, University of Pennsylvania, Philadelphia, Pa. 1912
HALLOCK, J. W., Instructor in charge of Co-operative Work, University of Pittsburgh, Pittsburgh, Pa. 1915
HALLSTED, J. C., Engineer, Robert W. Hunt Co., Chicago, Ill. 1910
HALSEY, F. A., Editor Emeritus, *American Machinist*, 505 Pearl St., New York, N. Y. 1907
HAM, WM. R., Professor of Physics, Pennsylvania State College, State College, Pa. 1914
HAMERSCHLAG, A. A., Director, Carnegie Institute of Technology, Pittsburgh, Pa. 1903
HAMILTON, EDW. P., % Editorial Dept., John Wiley & Sons., Inc., 432 Fourth Ave., New York, N. Y. 1914

HAMILTON, GEO. A., 532 Morris Ave., Elizabeth, N. J. 1911
HAMILTON, J. McC., President, Montana State College of A. & M. Arts, Bozeman, Mont. 1912
HAMILTON, J. O., Professor of Physics, Kansas State Agricultural College, Manhattan, Kans. 1910
HAMLIN, HANNIBAL L., Division Head, Boston Industrial School for Boys, Boston, Mass. 1912
HANCOCK, CHAS., Professor of Mechanical Engineering, University of Virginia, University, Va. 1915
HANDFORTH, C. H., W. L. Dickinson High School, Jersey City, N. J. 1912
HANNA, U. S., Associate Professor of Mathematics, Indiana University, Bloomington, Ind. 1915
HARDING, C. F., Professor of Electrical Engineering and Director of the Electrical Laboratories, Purdue University, LaFayette, Ind. 1908
HARING, ALEXANDER, Professor of Bridge and Railway Engineering, New York University, New York, N. Y. 1907
HARPER, A. C., Instructor in Machine Design, University of Illinois, Urbana, Ill. 1911
HARPER, C. H., Instructor in Drawing and Mathematics, Chestnut Hill Academy, Chestnut Hill, Philadelphia, Pa. 1909
HARRINGTON, J. L., Consulting Engineer, Harrington, Howard & Ash, Kansas City, Mo. 1903
HARRIS, C. L., Instructor in Drawing and Descriptive Geometry, The Pennsylvania State College, State College, Pa. 1914
HARRIS, F. C., Instructor in Architecture and Drawing, Kansas State Agricultural College, Manhattan, Kans. 1910
HARRIS, L. H., Professor and Head of the Department of Electrical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1912
HARRIS, WALTER B., Professor of Geodesy, Princeton University, Princeton, N. J. 1914
HARTER, G. A., Professor of Mathematics and Physics, Delaware College, Newark, Del. 1908
HARTMANN, F. M., Professor of Electrical and Mechanical Engineering, Cooper Union, New York, N. Y. 1908
HASEMAN, CHARLES, Professor of Mathematics and Mechanics, University of Nevada, Reno, Nev. 1914
HASKELL, E. E., Dean of the College of Civil Engineering, Cornell University, Ithaca, N. Y. 1907
HASKELL, F. E., Head of the Electrical Engineering Dept., Mechanics Institute, Rochester, N. Y. 1914
HASKELL, M. W., Professor of Mathematics, University of California, Berkeley, Cal. 1910
HASKINS, C. N., Assistant Professor of Mathematics, Dartmouth College, Hanover, N. H. 1909

HASTINGS, H. B., Professor of Applied Economics, Reed College, Portland, Ore. 1908
HATJIDAKIS, GEORGE, Piraeus, Greece 1913
HATT, W. K., Professor of Civil Engineering and Director of the Materials Testing Laboratory, Purdue University LaFayette, Ind. 1895
HAULTAIN, H. E. T., Professor of Mining Engineering, University of Toronto, Toronto, Canada 1911
HAUSMANN, ERICH, Associate Professor of Physics and Electrical Engineering, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. 1914
HAVENS, WM. W., Civil Engineer, 2453 Valentine Ave., New York, N. Y. 1914
HAVILAND, EDWIN, With the Seattle Lighting Co., Seattle, Wash.. 1902
HAWES, J. H., Junior Master, Dorchester High School, Dorchester Center, Mass. 1900
HAWLEY, J. B., Consulting Engineer, F. and M. Bank Bldg., Ft. Worth, Tex. 1911
HAWLEY, R. S., Professor and Head of Mechanical Engineering, Colorado School of Mines, Golden, Colo. 1915
HAY, E. D., Professor of Drawing and Machine Design, Oshkosh Normal School, Oshkosh, Wis. 1915
HAYES, THORNTON, Instructor in Machine Tool Work; Foreman, Machine Shop, Kansas State Agricultural College, Manhattan, Kans. 1915
HAYFORD, J. F., Director of the College of Engineering, Northwestern University, Evanston, Ill. 1905
HAYWARD, H. W., Associate Professor of Applied Mechanics, Massachusetts Institute of Technology, Boston, Mass. 1904
HAZELTINE, L. A., Assistant Professor of Electrical Engineering, Stevens Institute of Technology, Hoboken, N. J. 1910
HECK, ROBERT C. H., Professor of Mechanical Engineering, Rutgers College, New Brunswick, N. J. 1907
HEDRICK, E. R., Professor of Mathematics, University of Missouri, Columbia, Mo. 1910
HEDRICK, I. G., Consulting Engineer, 506 Inter State Bldg., Kansas City, Mo. 1903
HEDRICK, WM. A., Head of the Department of Physics of the High and Manual Training Schools, McKinley Manual Training School, Washington, D. C. 1913
HEHRE, F. W., Instructor in Electrical Engineering, Columbia University, New York, N. Y. 1913
HELMAN, M. P., Instructor in Mechanical Engineering, The Pennsylvania State College, State College, Pa. 1914

HENDERER, W. O., President, The Osborn Engineering Co., 740 Engineers Bldg., Cleveland, O. 1910

HENDERSON, J. M., President of Board of Trustees, The Case School of Applied Science, Cleveland, O. 1914

HENDRY, W. S., Instructor in Mechanic Arts, University of Arizona, Tucson, Ariz. 1915

HENLEY, W. W., Professor of Mechanic Arts, University of Arizona, Tucson, Ariz. 1907

HENSHALL, P. P., Instructor in Machine Shop, Pennsylvania State College, State College, Pa. 1915

HERGET, A. M., Professor of Drawing and Mechanic Arts, Louisiana State University, Baton Rouge, La. 1903

HERING, RUDOLPH, Hydraulic and Sanitary Consulting Engineer, 170 Broadway, New York, N. Y. 1911

HERSCHEL, W. H., Assistant Physicist, Bureau of Standards, Washington, D. C. 1911

HERTY, C. H., Professor of Chemistry, University of North Carolina, Chapel Hill, N. C. 1912

HESSE, G. ERNEST, Text Book Publisher, 609 Van Cortlandt Park Ave., Yonkers, N. Y. 1914

HEUTER, R. R., Inspector, Associated Factory Mutual Fire Insurance Cos., 31 Milk St., Room 510, Boston, Mass. 1912

HEWERDINE, T. S., Civil Engineer, Olivia, Minn. 1907

HEWITT, C. E., Dean of Engineering, New Hampshire College of A. & M. Arts, Durham, N. H. 1915

HIBBARD, H. WADE, Professor of Mechanical Engineering, University of Missouri, Columbia, Mo. 1896

HICKERSON, T. F., Associate Professor of Civil Engineering, University of North Carolina, Chapel Hill, N. C. 1914

HIGBEE, F. G., Professor and Head of the Department of Descriptive Geometry and Drawing, State University of Iowa, Iowa City, Ia. 1906

HIGBIE, H. H., Professor of Electrical Engineering, University of Michigan, Ann Arbor, Mich. 1908

HIGGINS, CHAS. H., Consulting Engineer; Secretary Princeton Engineering Association, 30 Church St., New York, N. Y. 1912

HILL, ARTHUR E., Professor of Chemistry, New York University, New York, N. Y. 1912

HILL, J. E., Professor of Civil Engineering, Brown University, Providence, R. I. 1894

HILL, WM. W., Professor of Electrical Engineering, Alabama Polytechnic Institute, Auburn, Ala. 1912

HILLEBRAND, W. A., 345 Kellog Ave., Palo Alto, Calif. 1910

HIROI, ISAMI, Professor of Civil Engineering, Tokyo Imperial University, College of Engineering, Tokyo, Japan..... 1910
HITCHCOCK, F. A., Instructor in Civil Engineering, Robert College, Constantinople, Turkey 1913
HITCHCOCK, GEO. G., Professor of Physics, Pomona College, Claremont, Calif. 1911
HITCHCOCK, G. P., Vice-Chairman of Faculty and Assistant to the Secretary, Pratt Institute, Brooklyn, N. Y..... 1914
HITCHCOCK, W. A., Assistant in Engineering Mathematics, University of Colorado, Boulder, Colo. 1915
HIXON, C. R., Instructor in Mechanical Engineering, Alabama Polytechnic Institute, Auburn, Ala..... 1910
HOAD, W. C., Professor of Sanitary Engineering, University of Michigan, Ann Arbor, Mich. 1907
HOBART, H. M., Consulting Engineer, General Electric Co., Schenectady, N. Y. 1912
HODGKINS, H. L., Dean of the College of Engineering, George Washington University, Washington, D. C. 1908
HODSON, L. C., Associate Professor of Mining Engineering, Iowa State College, Ames, Ia. 1915
HOEFER, E. G., Professor of Mechanical Engineering, University of Wyoming, Laramie, Wyo. 1910
HOERNING, CARLOS, Professor of Mechanical Engineering, Universidad de Chile, Santiago, Chile. 1912
HOEXTER, S. J., Instructor, Dept. of Engineering, University of Michigan, Ann Arbor, Mich. 1914
HOFMAN, H. O., Professor of Metallurgy, Massachusetts Institute of Technology, Boston, Mass. 1894
HOFFMAN, A. H., Associate Professor of Physics, Iowa State College, Ames, Ia. 1907
HOFFMAN, J. D., Professor of Mechanical Engineering and Practical Mechanics, and Head of Department, University of Nebraska, Lincoln, Nebr. 1907
HOGG, WM. T., Instructor in Civil Engineering, The Tulane University, New Orleans, La. 1914
HOLBROOK, E. A., Assistant Professor of Mining Engineering, University of Illinois, Urbana, Ill..... 1912
HOLDEN, C. A., Professor of Civil Engineering, Thayer School of Civil Engineering, Dartmouth College, Hanover, N. H..... 1901
HOLDER, F. J., Professor of Mathematics, University of Pittsburgh, Pittsburgh, Pa. 1912
HOLLIS, I. N., President, Worcester Polytechnic Institute, Worcester, Mass. 1894

HOLLISTER, V. L., Associate Professor of Electrical Engineering, University of Nebraska, Lincoln, Nebr. 1911
HOLMAN, W. F., Assistant Professor of Mathematics and Mechanics, University of Minnesota, Minneapolis, Minn. 1912
HOOD, GEO. J., Associate Professor of Mechanical Drawing, University of Kansas, Lawrence, Kans. 1914
HOOD, O. P., Chief Mechanical Engineer, U. S. Bureau of Mines, 40th & Butler Sts., Pittsburgh, Pa. 1893
HOOPER, E. G., Assistant Engineer, Dept. Water Supply, Gas and Electricity, 3198 Webster Ave., New York, N. Y. 1909
HOOPER, W. L., Professor of Electrical Engineering, Tufts College, Tufts College, Mass. 1907
HOSKINS, L. M., Professor of Applied Mathematics, 365 Lincoln Ave., Palo Alto, Calif. 1893
HOSMER, GEO. L., Assistant Professor of Civil Engineering, Massachusetts Institute of Technology, Boston, Mass. 1914
HOTCHKISS, HOMER J., 208 Dearborn Place, Ithaca, N. Y. 1914
HOUGHTON, C. E., Professor of Mechanics, New York University, New York, N. Y. 1908
HOUSE, E. B., Professor of Civil and Irrigation Engineering, Colorado State Agricultural College, Ft. Collins, Colo. 1913
HOUSTON, HALE, Professor of Civil Engineering, Clemson A. & M. College, Clemson College, S. C. 1914
HOWARD, J. W., Assistant Professor of Topographical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1907
HOWE, C. D., Chief Engineer, Grain Commission for Canada, Fort William, Ontario, Canada 1912
HOWE, C. S., President of the Case School of Applied Science, Cleveland, O. 1902
HOWE, M. A., Professor of Civil Engineering, Rose Polytechnic Institute, Terre Haute, Ind. 1894
HOWER, H. S., Professor of Physics, Carnegie Institute of Technology, Pittsburgh, Pa. 1914
HOXTON, L. G., Associate Professor, University of Virginia, University, Va. 1915
HUBBARD, A. K., 1145 Oregon Ave., Steubenville, O. 1907
HUBBARD, L. L., Geologist, Member Board of Regents, University of Michigan, and Board of Control, Michigan College of Mines, Houghton, Mich. 1911
HUDNUT, JOSEPH, Professor of Architecture, Alabama Polytechnic Institute, Auburn, Ala. 1913
HUDSON, C. W., Professor of Civil Engineering, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. 1909

HUGHES, H. J., Professor of Civil Engineering, Harvard University, Cambridge, Mass. 1907

HUME, ALFRED, Vice-Chancellor and Professor of Mathematics, University of Mississippi, University, Miss. 1894

HUMPHREYS, A. C., President, Stevens Institute of Technology, Hoboken, N. J. 1903

HUMPHREYS, D. C., Dean of the School of Applied Science and Professor of Civil Engineering, Washington and Lee University, Lexington, Va. 1893

HUND, AUGUST, Assistant Professor of Electrical Engineering, University of Southern California, Los Angeles, Cal. 1914

HUNT, CHAS. WARREN, Secretary, the American Society of Civil Engineers, 220 W. 57th St., New York, N. Y. 1911

HUNT, ROBERT W., Senior Member of Robert Hunt & Co., Chicago, Ill. 1913

HUNTER, J. A., Professor of Mechanical Engineering, University of Colorado, Boulder, Colo. 1904

HUNTINGTON, E. V., Associate Professor of Mathematics, Harvard University, Cambridge, Mass. 1906

HUNTINGTON, W. C., Assistant Professor of Civil Engineering, University of Colorado, Boulder, Colo. 1914

HUTCHINS, H. B., President, University of Michigan, Ann Arbor, Mich. 1913

HUTCHINS, R. E., Assistant Professor of Mechanics, State University of Iowa, Iowa City, Ia. 1912

HYDE, A. L., Associate Professor of Bridge Engineering, University of Missouri, Columbia, Mo. 1904

HYDE, E. P., Director, Nela Research Laboratory, National Lamp Works of General Electric Co., Nela Park, Cleveland, O. 1911

INGRAM, E. L., Professor of Railroad Engineering and Geodesy, University of Pennsylvania, Philadelphia, Pa. 1908

IVES, F. W., Assistant Professor of Agricultural Engineering, The Ohio State University, Columbus, O. 1910

IVES, H. C., Professor of Railroad Engineering, Worcester Polytechnic Institute, Worcester, Mass. 1901

IYER, R. P., Supervisor, Public Works Department, Teruverambur P. O., Trechwofoltz District, Deccan, India 1910

JABLOW, CHARLES, Associate Professor of Mechanical Engineering, Oklahoma A. & M. College, Stillwater, Okla. 1910

JACKSON, DUGALD C., Professor of Electrical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1893

JACKSON, JOHN PRICE, Commissioner, Dept. of Labor and Industry, Commonwealth of Pennsylvania, Harrisburg, Pa. 1894

JACOBUS, D. S., Advisory Engineer, The Babcock & Wilcox Co., and Special Lecturer in Experimental Engineering, Stevens Institute of Technology, Hoboken, N. J. 1893

JACOBY, H. S., Professor of Bridge Engineering, Cornell University, Ithaca, N. Y. 1894

JAMES, J. H., Professor of Chemical Engineering, Carnegie Institute of Technology, Pittsburgh, Pa. 1910

JAMES, R. L., Assistant Professor of Engineering Drawing, University of North Carolina, Chapel Hill, N. C. 1914

JAMESON, J. M., Vice President, Girard College, Philadelphia, Pa. 1903

JENKINS, A. LEWIS, Associate Professor of Mechanical Engineering, University of Cincinnati, Cincinnati, O. 1907

JENKINS, D. R., Assistant Professor of Electrical Engineering, University of Colorado, Boulder, Colo. 1912

JENSON, JOSEPH, Consulting Engineer, 208 Judge Bldg., Salt Lake City, Utah 1903

JEWETT, A. C., 52 College St., New Haven, Conn. 1907

JEWETT, F. B., Assistant Chief Engineer, Western Electric Co., 463 West St., New York, N. Y. 1914

JOBSON, A. J., General Superintendent, Wyoming Electric Co., Casper, Wyo. 1910

JOHNSON, A. R., Assistant Professor of Mathematics and Graphics, Rutgers College, New Brunswick, N. J. 1909

JOHNSON, C. A., Associate Professor of Electrical Engineering, University of Kansas, Lawrence, Kans. 1915

JOHNSON, E. A., Head of the Foundry Dept., Wentworth Institute, Boston, Mass. 1913

JOHNSON, L. J., Professor of Civil Engineering, Harvard University, Cambridge, Mass. 1898

JOHNSON, PHELPS, President, Dominion Bridge Co.; President, St. Lawrence Bridge Co., Montreal, Canada 1910

JOHNSON, WM. F., Philadelphia Electric Co., 1032 S. Ithan St., Philadelphia, Pa. 1913

JOHNSTON, C. T., Professor of Geodesy and Surveying, University of Michigan, Ann Arbor, Mich. 1913

JOHNSTON, W. A., Professor of Theoretical and Applied Mechanics, Massachusetts Institute of Technology, Boston, Mass. 1907

JONES, BASSETT, JR., Consulting Engineer, 101 Park Ave., New York, N. Y. 1907

JONES, C. R., Dean of the College of Engineering and Professor of Steam and Experimental Engineering, West Virginia University, Morgantown, W. Va. 1895

JONES, F. E., Assistant Professor of Mechanic Arts, University of Kansas, Lawrence, Kans. 1915

JONES, F. R., Mechanical and Electrical Engineer, 1702 Melrose Place, Knoxville, Tenn. 1893
JONES, G. R., Associate in Civil Engineering, Johns Hopkins University, Baltimore, Md. 1914
JORDAN, H. H., Associate in General Engineering Drawing, University of Illinois, Urbana, Ill. 1915
JUDD, HORACE, Associate Professor of Experimental Engineering, Ohio State University, Columbus, O. 1907
KARAPETOFF, VLADIMIR, Professor of Electrical Engineering, Cornell University, Ithaca, N. Y. 1909
KAULFUSS, J. E., Associate Professor Civil Engineering, University of Maine, Orono, Me. 1910
KAVANAUGH, W. H., Professor of Experimental Engineering, University of Minnesota, Minneapolis, Minn. 1902
KAY, EDGAR B., Consulting Engineer, Tuscaloosa, Ala. 1898
KEELY, R. R., Industrial Engineer, 4720 Clarendon Ave., Chicago, Ill. 1910
KEGERREIS, ROY, Graduate Student, Harvard University, Cambridge, Mass. 1913
KELLER, A. R., 52 Massachusetts Ave., Cambridge, Mass. 1910
KELLER, R. B., Associate Professor of Railway Engineering, University of Illinois, Urbana, Ill. 1913
KELLER, S. S., Professor of Mathematics, Head of Mathematics Dept., Carnegie Institute of Technology, Pittsburgh, Pa. 1912
KELLEY, HOWARD G., Vice-President, Grand Trunk Railway System, Montreal, P. Q., Canada 1910
KELLOGG, E. W., Instructor in Electrical Engineering, University of Missouri, Columbia, Mo. 1913
KELSALL, G. A., Instructor in Electrical Engineering, Michigan Agricultural College, East Lansing, Mich. 1911
KENERSON, W. H., Professor of Mechanical Engineering, Brown University, Providence, R. I. 1903
KENISON, ERVIN, Associate Professor of Drawing and Descriptive Geometry, Massachusetts Institute of Technology, Boston, Mass. 1912
KENNEDY, F. L., Associate Professor of Engineering Drawing, Harvard University, Cambridge, Mass. 1904
KENT, H. L., Principal, School of Agriculture, and Associate Professor of Education, Kansas State Agricultural College, Manhattan, Kans. 1915
KENT, J. M., Instructor in Steam and Electricity, Manual Training High School; President of the Henrici, Kent & Lowry Engineering Co., Kansas City, Mo. 1903

KENT, WILLIAM, Consulting Engineer, 64 Orange Road, Montclair, N. J. 1894

KEOWN, R. McA., Assistant Professor of Machine Design, University of Wisconsin, Madison, Wis. 1910

KERR, E. W., Professor of Mechanical Engineering, Louisiana State University, Baton Rouge, La. 1910

KERSHAW, W. H., Manager, Eastern Division, John Baker Jr. Co., New York, N. Y. 1913

KETCHUM, MILO S., Dean of the College of Engineering and Professor of Civil Engineering, University of Colorado, Boulder, Colo. 1903

KHACHADOORIAN, H. H., Civil Engineer, Bank of Commerce Bldg., Halifax, N. S. 1915

KIDD, J. W., Professor of Engineering, Texas State School of Mines and Metallurgy, Fort Bliss, Tex. 1908

KIMBALL, D. S., Professor of Machine Design and Industrial Engineering, Cornell University, Ithaca, N. Y. 1915

KING, CARL, Instructor in Materials of Construction, Wentworth Institute, Boston, Mass. 1912

KING, E. E., Professor of Railway Engineering, Iowa State College, Ames, Ia. 1908

KING, H. W., Professor of Hydraulic Engineering, University of Michigan, Ann Arbor, Mich. 1913

KING, R. S., Mechanical Engineering Department, University of Arizona, Tucson, Ariz. 1904

KINGSBURY, ALBERT, Consulting Engineer, 219 Stratford Ave., Pittsburgh, Pa. 1893

KINSEY, A. S., Supervising Instructor in Shop Practice, Stevens Institute of Technology, Hoboken, N. J. 1912

KINSLEY, CARL, Associate Professor of Physics, University of Chicago, Chicago, Ill. 1903

KIRBY, R. S., Assistant Professor of Drawing and Descriptive Geometry, Sheffield Scientific School, Yale University, New Haven, Conn. 1911

KIRCHNER, W. H., Professor of Drawing and Descriptive Geometry, University of Minnesota, Minneapolis, Minn. 1910

KIRKHAM, J. E., Professor of Structural Engineering, Iowa State College, Ames, Ia. 1915

KLEIN, A. W., Professor of Mechanical Engineering, Lehigh University, South Bethlehem, Pa. 1908

KNAPP, E. R., Professor of Descriptive Geometry and Mechanical Drawing, Stevens Institute of Technology, Hoboken, N. J..... 1912

KNAPP, W. A., Assistant Professor of Structural Engineering, Purdue University, LaFayette, Ind. 1914

KNEALE, R. D., Professor of Highway Engineering, Georgia School of Technology, Atlanta, Ga. 1912

KNIGHT, C. D., Assistant Professor of Experimental Electrical Engineering, Worcester Polytechnic Institute, Worcester, Mass. 1907

KNIGHT, W. A., Associate Professor of Machine Shop Practice, Ohio State University, Columbus, O. 1907

KNOCH, JULIUS J., Professor of Civil Engineering, University of Arkansas, Fayetteville, Ark. 1898

KNOWLTON, A. A., Associate Professor of Physics, University of Utah, Salt Lake City, Utah 1911

KNOWLES, MORRIS, Director, Department of Sanitary Engineering, University of Pittsburgh, Pittsburgh, Pa. 1914

KOERBER, G. A., Professor of Electrical Engineering, Delaware College, Newark, Del. 1915

KOESTER, FRANK, Consulting Engineer, 50 Church St., Hudson Terminal Bldg., New York, N. Y. 1910

KONDO, SENTARO, Civil Engineer, No. 27 Tatsuokacho Hongo, Tokyo, Japan 1911

KONDO, TORAGORO, Chief of Technical Division, Public Works Bureau, Home Department, Tokyo, Japan (Life Member) .. 1911

KOSTALEK, J. A., Associate Professor of Chemistry, University of Idaho, Moscow, Ida. 1913

KREWSON, R. H., Instructor in Iron Working, University of Pennsylvania, Philadelphia, Pa. 1912

KROTZER, FRED. W., Instructor in Electricity, Central Continuation School, Y. M. C. A., Milwaukee, Wis. 1915

KUNZE, E. J., Professor of Mechanical Engineering, in charge of Department, Oklahoma A. & M. College, Stillwater, Okla. 1907

LAGERGREN, J. T., Lecturer in Machine Design, University of Toronto, Toronto, Ont., Canada. 1912

LAMBERT, B. J., Professor of Structural Engineering, State University of Iowa, Iowa City, Ia. 1907

LAMBERT, P. A., Professor of Mathematics, Lehigh University, South Bethlehem, Pa. 1897

LAMBIE, J. S., Assistant Professor of Civil Engineering, University of Pittsburgh, Pittsburgh, Pa. 1914

LAMPHRIES, V. D., Superintendent of Electrical Shops, Robert College, Constantinople, Turkey 1915

LANDRETH, O. H., Professor of Civil Engineering, Union University, Schenectady, N. Y. 1893

LANGILLE, H. B., Assistant Professor of Machine Design and Mechanical Drawing, University of California, Berkeley, Cal. 1915

LANGSDORF, A. S., Dean of the Schools of Engineering and Architecture and Professor of Electrical Engineering, Washington University, St. Louis, Mo. 1903

LANIER, A. C., Professor of Electrical Engineering, University of Missouri, Columbia, Mo. 1915

LAPHAM, J. R., Instructor in Civil Engineering Pennsylvania State College, State College, Pa. 1912

LAPHAM, J. S., Adjunct Professor of Experimental Engineering, University of Virginia, University, Va. 1915

LARKIN, F. V., Assistant Professor of Mechanical Engineering, Lehigh University, South Bethlehem, Pa. 1914

LARSON, G. L., Associate Professor of Steam and Gas Engineering, 204 N. Pinckney St., Madison, Wis. 1911

LAUER, H. H., with Midvale Steel Co., Philadelphia, Pa. 1913

LAWRANCE, C. H., Instructor in Mechanics, Purdue University, La-Fayette, Ind. 1906

LAWRENCE, C. W., Professor of Civil Engineering, University of Southern California, Los Angeles, Cal. 1909

LAWRENCE, J. W., Professor of Mechanical Engineering, State Agricultural College of Colorado, Fort Collins, Colo. 1898

LAWRENCE, R. R., Associate Professor of Electrical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1907

LAWRENCE, W. H., Professor of Architectural Engineering, Massachusetts Institute of Technology, Boston, Mass. 1907

LAWS, F. A., Professor of Electrical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1909

LAWTON, E. E., Associate Professor of Electrical Engineering, Syracuse University, Syracuse, N. Y. 1910

LECONTE, J. N., Professor of Engineering Mechanics, University of California, Berkeley, Calif. 1913

LEETE, J. H., Dean, School of Applied Science, Carnegie Institute of Technology, Pittsburgh, Pa. 1907

LEKBERG, C. H., Assistant Professor of Mechanical Engineering, University of Maine, Orono, Me. 1912

LELAND, O. M., Assistant Professor of Astronomy and Geodesy, Cornell University, Ithaca, N. Y. 1908

LENDALL, H. N., Assistant Professor of Civil Engineering, Rutgers College, New Brunswick, N. J. 1912

LEONARD, L. R., Instructor in Electrical Engineering, University of Colorado, Boulder, Colo. 1914

LEPAGE, CLIFFORD B., Assistant Professor of Physics, Stevens Institute of Technology, Hoboken, N. J. 1908

LESTER, O. C., Professor of Physics, University of Colorado, Boulder, Colo. 1912

LeTellier, L. S., Professor of Drawing, The Citadel, The Military College of South Carolina, Charleston, S. C. 1912
Leutwiler, O. A., Professor of Machine Design, University of Illinois, Urbana, Ill. 1906
Lewis, F. J., Assistant Instructor in Civil Engineering, Pennsylvania State College, Pa. 1916
Lewis, Brother Hubert, Associate Professor of Engineering, Christian Brothers College, St. Louis, Mo. 1911
Lewis, J. F., Electrical Engineer, 503 Brinton St., Germantown, Philadelphia, Pa. (Life Member) 1913
Lewis, O. L., Tool Designer, Lyons-Atlas Co., Indianapolis, Ind. 1913
Lieb, J. W., Vice-President, The New York Edison Co., 124 E. 15th St, New York, N. Y. 1911
Lilly, S. B., Assistant Professor of Civil Engineering, Swarthmore College, Swarthmore, Pa. 1913
Lincoln, P. M., Director of the Dept. Electrical Engineering, University of Pittsburgh; Commercial Engineer, Westinghouse E. & M. Co., East Pittsburgh, Pa. 1911
Lindemann, C. A., Professor of Applied Mathematics, Bucknell University, Lewisburg, Pa. 1905
Linville, C. P., with American Smelting & Refining Co., Perth Amboy, N. J. 1904
Little, C. N., Dean of the College of Engineering and Professor of Civil Engineering, University of Idaho, Moscow, Idaho.... 1907
Lockwood, E. H., Assistant Professor of Mechanical Engineering, Yale University, New Haven, Conn. 1908
Lodge, W. L., Associate Professor of Physics, Michigan Agricultural College, East Lansing, Mich. 1908
Long, J. J., Instructor in Civil Engineering, University of Cincinnati, Cincinnati, O. 1911
Longyear, J. M., ex-Member Board of Control, Michigan College of Mines, Marquette, Mich. 1905
Loring, F. C., Instructor in Electrical Engineering, Ford Co., Champaign, Ill. 1912
Lory, C. A., President, State Agricultural College of Colorado, Fort Collins, Colo. 1908
Love, A. C., Professor of Railway Engineering, Texas A. & M. College, College Station, Texas 1900
Luby, Wm. A., Head of Dept. of Mathematics, Kansas City Polytechnic Institute, Kansas City, Mo. 1914
Lucke, C. E., Professor of Mechanical Engineering and Head of Dept., Columbia University, New York, N. Y. 1906
Luderitz, Joao, Engenheiro Chefo-Instituto Technico Professional, Porto Alegre, Brazil 1909

LUDY, L. V., Professor of Experimental Engineering, Purdue University, LaFayette, Ind. 1908

LUND, JACOB, Supt. Heat and Power Dept., Kansas State Agricultural College, Manhattan, Kans. 1910

LUNDGREN, LEONARD, District Engineer, U. S. Forest Service, Beck Bldg., Portland, Ore. 1907

LUTHER, H. B., Instructor in Civil Engineering, Massachusetts Institute of Technology, Boston, Mass. 1914

LYE, R. C., Civil Engineer, 49 Dupont St., Toronto, Canada 1915

LYLE, WM. T., Professor of Municipal Engineering, Lafayette College, Easton, Pa. 1914

LYMAN, RICHARD R., Professor of Civil Engineering, University of Utah; Vice-Chairman, Utah State Road Commission, Salt Lake City, Utah 1908

LYNCH, D. E., Instructor in Forging, Kansas State Agricultural Engineering, Manhattan, Kans. 1915

LYON, W. V., Instructor in Electrical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1912

MCALISTER, E. H., Professor of Mechanics, University of Oregon, Eugene, Ore. 1911

MCALLISTER, A. S., Electrical Engineer, Engineers' Club, New York, N. Y. 1911

MCCAFFERY, R. S., Professor of Metallurgy, University of Wisconsin, Madison, Wis. 1911

MCCANDLISS, E. S., Assistant Professor of Civil Engineering, Missouri School of Mines, Rolla, Mo. 1915

MCCANDLISS, L. C., Assistant Professor in Civil Engineering, University of Pittsburgh, Pittsburgh, Pa. 1914

MCCANN, WM. R., c/o Public Utilities, Capitol Bldg., Springfield, Ill. 1912

MCCAUSTLAND, E. J., Dean, School of Engineering, and Director Engineering Experiment Station, University of Missouri, Columbia, Mo. .....

MCCLELLAND, E. H., Technology Librarian, Carnegie Library of Pittsburgh, Pittsburgh, Pa. 1912

MCCLELLAND, J. F., Professor of Mining Engineering, Yale University, New Haven, Conn. 1912

MCCLINTIC, H. H., Vice-President and General Manager, McClintic-Marshall Construction Co., Pittsburgh, Pa. 1910

MCCORMICK, E. B., Mechanical Engineer, Office of Public Roads, U. S. Dept. of Agriculture, Washington, D. C. 1908

MCCORMICK, S. B., Chancellor, University of Pittsburgh, Pittsburgh, Pa. 1914

McCullough, F. M., Assistant Professor of Materials, Carnegie Institute of Technology, Pittsburgh, Pa. 1910
McDaniel, A. B., Assistant Professor of Civil Engineering, University of Illinois, Urbana, Ill. 1907
McEachnon, K. B., Professor of Electrical Engineering, Ohio Northern University, Ada, O. 1916
McFarland, David F., Assistant Professor of Applied Chemistry, College of Literature, Arts and Science, University of Illinois, Urbana, Ill. 1914
McGaw, F. M., Assistant Professor of Mathematics, Cornell College, Mt. Vernon, Iowa 1911
McGowan, John, Associate Professor of Applied Mechanics, University of Toronto, Ont., Canada..... 1914
McKergow, C. M., Associate Professor of Mechanical Engineering, McGill University, Montreal, Canada. 1913
McKibben, F. P., Professor of Civil Engineering, Lehigh University, South Bethlehem, Pa. 1904
McLeod, D. F., Assistant Professor of Civil Engineering, University of Mississippi, University, Miss. 1915
McMeen, S. G., President, Columbus Railway, Power & Light Co., etc., 1001 Wyandotte Bldg., Columbus, O. 1911
McMillin, Emerson, Chairman, Board of Directors, American Light & Traction Co., and President of many Companies, Ramsey, N. J. (Life Member) 1911
McMurtray, H. D., Assistant Professor of Physics, Mississippi A. & M. College, Agricultural College, Miss. 1914
McNair, F. W., President, Michigan College of Mines, Houghton, Mich. 1897
McNair, G. B., Instructor in Electrical Engineering, Kansas State Agricultural College, Manhattan, Kans. 1914
McNaugher, D. W., Partner, Robert W. Hunt & Co., Engineers, Pittsburgh, Pa. 1910
McNown, W. C., Associate Professor of Civil Engineering, University of Kansas, Lawrence, Kans. 1915
McRae, A. L., Director and Professor of Physics, Missouri School of Mines, Rolla, Mo. 1907
Macarthur, J. R., Associate Professor of English Language, Kansas State Agricultural College, Manhattan, Kans. 1915
MacCracken, J. H., President, Lafayette College, Easton, Pa.... 1913
Macdonald, S. L., Head of the Department of Mathematics, Colorado State Agricultural College, Ft. Collins, Colo..... 1914
Mack, J. G. D., Professor of Machine Design, University of Wisconsin, Madison, Wis. 1901

MacKay, H. M., Professor of Civil Engineering, McGill University, Montreal, Quebec, Canada 1914
Mackenzie, C. J., Professor of Civil Engineering, University of Saskatchewan, Saskatoon, Sask., Canada 1915
Maclaurin, R. C., President, Massachusetts Institute of Technology, Boston, Mass. 1909
MacNaughton, Jas., General Manager, Calumet and Hecla Mines; Member Board of Control, Michigan College of Mines, Calumet, Mich. 1905
MacNutt, Barry, Professor of Physics, Lehigh University, South Bethlehem, Pa. 1910
Macomber, G. S., Electrical Engineer, Washington, D. C. 1904
Magnusson, C. E., Professor of Electrical Engineering, University of Washington, Seattle, Wash. 1907
Magruder, Wm. T., Professor of Mechanical Engineering, The Ohio State University, Columbus, O. 1893
Main, C. T., Consulting and Constructing Engineer, 14 Herrick St., Winchester, Mass. 1911
Mallory, Francis, Professor of Physics and Electrical Engineering, Virginia Military Institute, Lexington, Va. 1912
Mallory, W. F., Instructor in Mechanical Engineering, University of Colorado, Boulder, Colo. 1915
Mann, C. V., Instructor in Engineering Mathematics, University of Colorado, Boulder, Colo. 1916
Mann, C. R., The Carnegie Foundation for the Advancement of Teaching, 576 Fifth Ave., New York, N. Y. 1914
Mann, F. M., Professor of Architecture, University of Minnesota, Minneapolis, Minn. 1911
Marburg, Edgar, Professor of Civil Engineering, University of Pennsylvania, Philadelphia, Pa. 1894
Mark, Robert M., Civil Engineer, Highways, Spencerport, Oswego Co., N. Y. 1909
Marker, J. R., State Highway Commissioner, 707 Hartman Bldg., Columbus, O. 1913
Marks, L. S., Professor of Mechanical Engineering, Harvard University, and Massachusetts Institute of Technology, Cambridge, Mass. 1909
Marquis, F. W., Professor of Steam Engineering, Ohio State University, Columbus, Ohio 1910
Marr, Robt. A., Dean of the Engineering Department, Virginia Polytechnic Institute, Blacksburg, Va. 1912
Marsh, H. E., Professor of Physics, University of Redlands, Redlands, Calif. 1910

MARSHALL, W. C., Consulting Engineer, The Federal Sugar Refining Co., 91 Wall St., New York, N. Y. 1912

MARSTON, ANSON, Dean of the Division of Engineering and Director of the Engineering Experiment Station, and Professor of Civil Engineering, Iowa State College, Ames, Ia. 1894

MARTEL, R. R., Assistant Engineer, Sayles Finishing Plants, Saylesville, R. I. 1915

MARTENIS, J. VAN S., Assistant Professor of Mechanical Engineering, University of Minnesota, Minneapolis, Minn. 1908

MARTIN, L. A., JR., Dean and Professor of Mechanics, Stevens Institute of Technology, Hoboken, N. J. 1907

MARTIN, T. C., Secretary, The National Electric Light Association, 29 West 39th St., New York, N. Y. 1909

MARTIN, W. H., Instructor in Mechanical Engineering, University of Minnesota, Minneapolis, Minn. 1913

MARVIN, HENRY H., Assistant Professor of Physics, Tufts College, Tufts College, Mass. 1914

MARX, C. D., Professor of Civil Engineering, Leland Stanford Junior University, Stanford University, Calif. 1893

MASON, A. J., Engineer, Chicago Railway Exchange, 5715 Woodlawn Ave., Chicago, Ill. 1912

MATHEWS, H. B., Professor of Physics, South Dakota State College of A. and M. Arts, Brookings, S. D. 1896

MATHEWSON, F. E., Director, Technical and Industrial Dept., Wm. L. Dickinson High School, Jersey City, N. J. 1913

MATHEWSON, JAS. S., Instructor in Engineering, Municipal University of Akron, Akron, O. 1914

MATTHEWS, ROBERTSON, Assistant Professor of Power Engineering, Cornell University, Ithaca, N. Y. 1910

MAURER, E. R., Professor of Mechanics, University of Wisconsin, Madison, Wis. 1897

MAY, CHAS. C., Instructor in Civil Engineering, University of Washington, Seattle, Wash. 1912

MEAD, D. W., Professor of Hydraulic and Sanitary Engineering, University of Wisconsin, Madison, Wis. 1908

MEASE, J. A., Associate Professor of Machine Design, Pennsylvania State College, State College, Pa. 1909

MEEKER, W. H., Professor of Mechanical Engineering, Iowa State College, Ames, Ia. 1903

MEES, C. L., President, Rose Polytechnic Institute, Terre Haute, Ind. 1894

MÉHELY, KÁLMÁN, Director of the Society of Hungarian Ironworks and Machinery Factories, Budapest, Hungary 1909

MEIKLEJOHN, ROBERT, Assistant Professor of Engineering Drawing, Ohio State University, Columbus, O. 1909
MELLER, H. B., Dean, School of Mines, Professor of Mining, University of Pittsburgh, Pittsburgh, Pa. 1915
MENDENHALL, T. C., 329 N. Chestnut St., Ravenna, O. (Honorary Member) 1895
MERRILL, J. F., Director of the Utah State School of Mines; Professor of Physics and Electrical Engineering, University of Utah, Salt Lake City, Utah 1907
MERRILL, J. L., Instructor in Mechanical Drawing, University of Colorado, Boulder, Colo. 1915
MERRIMAN, MANSFIELD, 1071 Madison Ave., New York, N. Y..... 1893
METCALF, LEONARD, of Metcalf and Eddy, Consulting Civil Engineers, 14 Beacon St., Boston, Mass. 1910
MEYER, ADOLPH F., Associate Professor of Hydraulics, University of Minnesota, Minneapolis, Minn. 1913
MICKEY, CLARK E., Assistant Professor of Applied Mechanics and Machine Design, University of Nebraska, Lincoln, Nebr. 1912
MILLAR, A. V., Assistant Professor of Drawing, University of Wisconsin, Madison, Wis. 1914
MILLER, DAYTON C., Professor of Physics, Case School of Applied Science, Cleveland, O. 1907
MILLER, HUGH, Lecturer in Civil Engineering, Rice Institute, Houston, Tex. 1909
MILLER, H. W., Assistant Dean, College of Engineering, and Assistant Professor of General Engineering Drawing, University of Illinois, Urbana, Ill. 1912
MILLER, N. C., Instructor in Mechanical Engineering, and Engineering Extension, The Pennsylvania State College, State College, Pa. 1914
MILLER, W. A., Associate Professor of Railway Engineering, University of Missouri, Columbia, Mo. 1908
MISER, W. L., Assistant Professor Mathematics in College of Engineering, University of Arkansas, Fayetteville, Ark. 1914
MITCHAM, G. N., Professor of Civil Engineering, Alabama Polytechnic Institute, Auburn, Ala. 1906
MITCHELL, BRAINERD, JR., Associate Professor of Mechanical Engineering, University of Arkansas, Fayetteville, Ark. 1910
MITCHELL, LOUIS, Associate Professor of Civil Engineering, Syracuse University, Syracuse, N. Y. 1913
MODJESKI, RALPH, Consulting Engineer, 101 Park Ave., New York, N. Y. 1908
MOLBY, F. A., Assistant Professor of Physics, Indiana University, Bloomington, Ind. 1910

MONROE, W. K., Manager, Engineering Dept., The Brown Hoisting Machinery Co., Cleveland, O. 1911
MOODY, L. F., Professor of Hydraulics, Rensselaer Polytechnic Institute, Troy, N. Y. 1912
MOOMAW, DALTON, Road Engineer, Cuyahoga Co., 1315 Lakeview Road, N. E., Cleveland, O. 1911
MOORE, F. C., Associate Professor of Mathematics, New Hampshire College of A. & M. Arts, Durham, N. H. 1915
MOORE, G. R., Assistant Professor in Civil Engineering, University of Cincinnati, Cincinnati, O. 1913
MOORE, H. F., Professor of Engineering Materials, University of Illinois, Urbana, Ill. 1905
MOORE, L. E., Bridge and Signal Engineer, Massachusetts Public Service Commission, Boston, Mass. 1907
MOORE, S. H., Director of Mechanic Arts, McKinley High School, St. Louis, Mo. 1902
MORE, CHAS. C., Professor of Civil Engineering, University of Washington, Seattle, Wash. 1901
MORECROFT, J. H., Associate Professor of Electrical Engineering, Columbia University, New York, N. Y. 1908
MORGAN, WM. F., Trustee of Columbia University, Arch 11, Brooklyn Bridge, New York, N. Y. 1912
MORLEY, FRED, Civil Engineer, 818 Church St., Ann Arbor, Mich. 1896
MORRILL, J. B., Acting Professor of Electrical Engineering, University of Colorado, Boulder, Colo. 1914
MORRIS, C. C., Professor of Mathematics, and Assistant to the Dean, College of Engineering, The Ohio State University, Columbus, O. 1915
MORRIS, C. T., Professor of Structural Engineering, Ohio State University, Columbus, O. 1907
MORRIS, J. J., Professor of Mechanical Constructive Practice, University of Pennsylvania, Philadelphia, Pa. 1912
MORRISON, I. F., Lecturer in Structural Engineering, University of Alberta, Edmonton South, Alta., Canada 1912
MORRISON, ROGER L., Professor of Highway Engineering, Texas A. & M. College, College Station, Tex. 1914
MORSE, G. H., Consulting Engineer, Mutual Electric & Machine Co., Wheeling, W. Va. 1907
MORSE, J. L., Instructor in Mechanical Engineering, Michigan Agricultural College, East Lansing, Mich. 1910
MORSS, EVERETT, 115 Commonwealth Ave., Boston, Mass. 1910
MOSELEY, A. W., Professor of Mechanical Engineering, Lewis Institute, Chicago, Ill. 1907

MOSS, S. A., Engineer, Turbine Research Dept., General Electric Co., Lynn, Mass. 1911

MOTT, W. E., Professor of Civil Engineering, Carnegie Institute of Technology, Pittsburgh, Pa. 1907

MOUNCE, J. L., Instructor in Wood Working, University of Pennsylvania, Philadelphia, Pa. 1912

MOYER, J. A., Director of the Dept. of University Extension, Massachusetts Board of Education, Boston Mass. 1904

MOYLE, M. W., Assistant in Mechanical Engineering, University of Colorado, Boulder, Colo. 1915

MUHLFELD, J. E., Vice-President and General Manager, Kansas City Southern Railway, Kansas City, Mo. 1911

MULDOWNEY, J. W., Instructor in Heating and Ventilating, Franklin Union, Boston, Mass. 1912

MUNN, D. W., Assistant Engineer, Steel Company of Canada, Montreal, Canada 1915

MUNRO. A. R., Senior Demonstrator in Engineering, University of Queensland, Brisbane, Australia 1913

MUNRO, G. W., Assistant Professor of Mechanical Engineering, Purdue University, LaFayette, Ind. 1915

MUNRO, M. S., Assistant Professor of Electrical Engineering, Tufts College, Tufts College, Mass. 1914

MUNROE, G. E., Construction Department, General Electric Co., Schenectady, N. Y. 1907

MUNROE, H. S., Emeritus Professor of Mining, Columbia University, New York, N. Y. 1893

MURDOCK, H. E., Agricultural Engineer, Head of Agricultural Engineering Department, University of Montana, Bozeman, Mont. 1910

MURPHY, J. F., Instructor in Foundry Work, University of Pennsylvania, Philadelphia, Pa. 1912

MURPHY, R. K., % P. R. Cole, Sydney Teachers College, Sydney, Australia 1914

MURRAY, D. A., Professor of Applied Mathematics, McGill University, Montreal, Canada 1910

MURRIE, J. L., Supervisor, Cadet Engineer Corps, The New York Edison Co., New York, N. Y. .....

MYERS, CURTIS, C., Professor of Production Engineering, University of Cincinnati, Cincinnati, O. 1914

NAGLE, J. C., Chairman, Board of Water Engineers, State of Texas, Austin, Texas 1897

NAIDU, A. S., Assistant Engineer, Vizianagram City, Vizagapatam District, Madras, India 1913

NAIDU, K. S., Manager, Samasthanam Engineer's Office, Vizianagram City, Madras, South India 1914

NASH, C. A., Instructor in Electrical Engineering, Armour Institute of Technology, Chicago, Ill. 1913

NEEL, WM. T., Instructor in Engineering, Washington & Lee University, Lexington, Va. 1914

NEFF, F. H., Professor of Civil Engineering, Case School of Applied Science, Cleveland, O. 1895

NELSON, J. H., Professor of Applied Mechanics, Worcester Polytechnic Institute, Worcester, Mass. 1910

NELSON, J. R., Assistant Professor of Englisih in the Colleges of Engineering and Architecture, University of Michigan, Ann Arbor, Mich. 1914

NESBIT, A. F., Consulting Engineer; Special Lecturer in Electrical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1902

NEWCOMBE, J. L., Professor of Civil Engineering, University of Virginia, University, Va. 1915

NEWELL, F. H., Professor of Civil Engineering, University of Illinois, Urbana, Ill. 1915

NEWHALL, A. B., Instructor of Applied Science, Wentworth Institute, Boston, Mass. 1912

NEWKIRK, B. L., Assistant Professor of Mathematics and Mechanics, College of Engineering, University of Minnesota, Minneapolis, Minn. 1908

NEWTON, GUY D., Instructor in Mechanical Drawing and Descriptive Geometry, University of Missouri, Columbia, Mo. 1913

NICHOLS, CHAS. S., Assistant to Dean, Director, Division of Engineering, Iowa State College, Ames, Ia. 1915

NOBLE, H. P., Consulting and Contracting Engineer, Falls Church, Va. 1908

NOERENBERG, C. E., Instructor in Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. 1910

NORRIS, E. B., Associate Professor of Mechanical Engineering, University of Wisconsin, Madison, Wis. 1907

NORRIS, H. H., Associate Editor, *Electric Railway Journal*, 239 W. 39th St., New York, N. Y. 1900

NORTHCOTT, J. A., Associate Professor of Mathematics, Syracuse University, Syracuse, N. Y. 1915

NORTON, A. E., Assistant Professor of Engineering Drawing, Harvard University and Massachusetts Institute of Technology, Cambridge, Mass. 1910

NORTON, C. L., Massachusetts Institute of Technology, Boston, Mass. .....

NORWOOD, C. J., Dean of the College of Mines and Metallurgy, State University of Kentucky, Lexington, Ky. 1907

NOTTINGHAM, A. R., M. E. Dept., Purdue University, W. LaFayette, Ind. 1910

NUGENT, P. C., Professor of Civil Engineering, Syracuse University, Syracuse, N. Y. 1914

NYSWANDER, R. E., Professor of Physics, University of Denver, Denver, Colo. 1912

OCKERBLAD, A. M., Examiner of Surveys in the U. S. Dept. of Agriculture, Forest Service, Washington, D. C. 1911

OGLESBY, E. J., Instructor in Mathematics, University of Virginia, University, Va. 1915

OGLESBY, N. E., Instructor in Political Science, University of Virginia, University, Va. 1915

OHLE, E. L., Professor of Mechanical Engineering, Washington University, St. Louis, Mo. 1905

OLMSTED, CHAS. T., Instructor in Applied Mechanics and Hydraulics, Case School of Applied Science, Cleveland, O. 1914

OLSEN, TINIUS, President, Tinius Olsen Machine Co., 500 N. 12th St., Philadelphia, Pa. 1907

OLSON, O. A., Assistant Professor of Mechanical Engineering, Iowa State College, Ames, Ia. 1915

O'NEILL, J. F., Instructor, Mechanical Engineering Dept., Massachusetts Institute of Technology, Boston, Mass. 1912

ORTH, H. D., Instructor in Mechanical Drawing, University of Wisconsin, Madison, Wis. 1910

ORTON, EDWARD, JR., Professor of Ceramic Engineering and Dean of the College of Engineering, The Ohio State University, Columbus, O. 1900

OSBORN, F. A., Professor of Physics, University of Washington, Seattle, Wash. 1907

OSBORNE, L. A., Vice-President, Westinghouse Electric & Mfg. Co., Pittsburgh, Pa. 1911

O'SHAUGHNESSY, LOUIS, Instructor in Mathematics, University of Pennsylvania, Philadelphia, Pa. 1912

OSSA, GASTON, Assistant in Physics, Universidad de Chile, Santiago, Chile, S. A. 1911

OSTRANDER, J. E., Professor of Mathematics and Civil Engineering, Massachusetts Agricultural College, Amherst, Mass. 1894

OWEN, R. S., Instructor in Civil Engineering, University of Wisconsin, Madison, Wis. 1910

OWENS, R. B., Secretary of The Franklin Institute, Philadelphia, Pa. 1894

PAINE, E. B., Professor of Electrical Engineering and Acting Head of the Department, University of Illinois, Urbana, Ill. 1911

PAINE, FRANK D., Assistant Professor of Electrical Engineering, Iowa State College, Ames, Ia. 1915
PARCEL, J. I., Associate Professor of Structural Engineering, University of Minnesota, Minneapolis, Minn. 1910
PARK, C. F., Professor of Mechanism, Director of the Mechanical Laboratories, Director of Lowell Institute School for Industrial Foremen, Massachusetts Institute of Technology, Boston, Mass. 1903
PARK, C. W., Assistant Professor of English, University of Cincinnati, Cincinnati, O. 1915
PARKER, F. Y., U. S. Assistant Engineer, United States Engineer Office, Custom House, St. Louis, Mo. 1910
PARKER, J. C., Professor of Electrical Engineering, University of Michigan, Ann Arbor, Mich. 1916
PARKIN, J. H., Lecturer in Mechanical Engineering, University of Toronto, Toronto, Ontario, Canada 1915
PARKS, C. W., Civil Engineer, United States Navy, Public Works Officer, Naval Station, Pearl Harbor, Honolulu, T. H. 1911
PARMLY, CHAS. H., Professor of Physics, The College of the City of New York, N. Y. 1912
PARR, S. W., Professor of Applied Chemistry, University of Illinois, Urbana, Ill. 1912
PASSANO, L. M., Associate Professor of Mathematics, Massachusetts Institute of Technology, Boston, Mass. 1912
PATTEN, W. E., Professor of Civil Engineering, Government Institute of Technology, Shanghai, China 1915
PATTERSON, A. H., Professor of Physics and Dean of the School of Applied Science, University of North Carolina, Chapel Hill, N. C. 1907
PATTERSON, L. L., Professor of Electrical Engineering, Mississippi A. & M. College, Agricultural College, Miss. 1915
PATTERSON, T. S., Instructor in Mechanics and Materials of Construction, The Pennsylvania State College, State College, Pa... 1914
PAUL, C. E., Professor of Mechanics, Armour Institute of Technology, Chicago, Ill. 1907
PEARSON, R. A., President, Iowa State College, Ames, Ia..... 1914
PEHRSON, E. W., Assistant Professor of Mathematics, University of Utah, Salt Lake City, Utah 1915
PENCE, W. D., Member, Engineering Board, Interstate Commerce Commission, Chicago, Ill. 1895
PENDER, HAROLD, Professor of Electrical Engineering, University of Pennsylvania, Philadelphia, Pa. 1909
PENN, J. C., Assistant Professor of Civil Engineering, Armour Institute of Technology, Chicago, Ill. 1915

PERRY, C. F., Supervisor of Manual and Industrial Training, Milwaukee Public Schools, Milwaukee, Wis. 1907

PERRY, W. H., Instructor in Applied Science, Wentworth Institute, Boston, Mass. 1913

PETTEE, C. H., Dean and Professor of Mathematics, New Hampshire College, Durham, N. H. 1898

PHALEN, HAROLD R., Professor of Mathematics, Berea College, Berea, Ky. 1914

PHELON, J. O., Professor of Electrical Engineering, Worcester Polytechnic Institute, Worcester, Mass. 1902

PHELPS, HOWARD E., Assistant Professor of Civil Engineering, University of Colorado, Boulder, Colo. 1914

PHILBRICK, H. S., Professor of Mechanical Engineering, Northwestern University, Evanston, Ill. 1913

PHILLIPS, H. C., Assistant General Secretary, President's Conference on Federal Valuation of Railroads, 937 Commercial Trust Bldg., Philadelphia, Pa. 1913

PHILLIPS, J. D., Assistant Dean, College of Engineering, and Professor of Drawing, University of Wisconsin, Madison, Wis.... 1899

PICKELS, G. W., Jr., Instructor in Civil Engineering, University of Illinois, Urbana, Ill. 1910

PINTO, ANTHONY, Assistant Professor of Electrical Engineering, Cooper Union, New York, N. Y. 1913

PIPER, FRED. F., Instructor in Electrical Engineering, Mechanics Institute, Rochester, N. Y. 1915

PLAGGE, H. J., Assistant Professor of Physics, Iowa State College, Ames, Ia. 1915

PLANT, L. C., Head of the Department of Mathematics, Michigan Agricultural College, East Lansing, Mich. 1914

POND, FRANCIS J., Professor of Chemistry and Director of Chemical Laboratory, Stevens Institute of Technology, Hoboken, N. J. 1912

POND, G. G., Dean of the School of Natural Science, The Pennsylvania State College, State College, Pa. 1914

POOLE, CECIL P., Consulting Engineering, Atlanta, Ga. 1907

POORE, O. B., Manual Training Director, Aurora, Minn. 1911

POORMAN, A. P., Assistant Professor of Applied Mechanics, Purdue University, LaFayette, Ind. 1907

POPE, WILLARD, Vice-President and Engineer, The Canadian Bridge Co., Ltd., Walkerville, Ontario 1911

PORTER, CHAS. T., Instructor in Mechanical Engineering, Yale University, New Haven, Conn. 1912

PORTER, DWIGHT, Professor of Hydraulic Engineering, Massachusetts Institute of Technology, Boston, Mass. 1893

PORTER, F. M., Associate in Engineering Drawing, University of Illinois, Urbana, Ill. 1912

PORTER, H. E., Assistant Professor of Mathematics, Kansas State Agricultural College, Manhattan, Kans. 1915

PORTER, J. B., Professor of Mining Engineering, McGill University, Montreal, Quebec, Canada 1904

PORTER, J. F., President of the Tri-City Railway and Light Co., 125–127 West 3d St., Davenport, Iowa 1912

PORTER, J. M., Professor of Civil Engineering, Lafayette College, Easton, Pa. 1893

PORTER, R. A., Professor of Physics, Syracuse University, Syracuse, N. Y. 1908

PORTER, R. H., Associate Professor of Mechanical Engineering, New Hampshire College, Durham, N. H. 1915

POTTER, A. A., Professor of Steam and Gas Engineering and Dean of the Engineering Division, Kansas State Agricultural College, Manhattan, Kans. 1908

POTTER, J. C., 402 W. Grove Ave., Oak Park, Ill. 1913

POTTS, R. J., Civil Engineer, 1412 Amicable Bldg., Waco, Tex. 1910

POWERS, E. L., Editor *Good Roads*, 150 Nassau St., New York, N. Y. 1911

POWERS, W. P., National Electric Signalling Company, Brooklyn, N. Y. 1914

PRATT, H. B., Test Engineer, Public Service Commission, Harrisburg, Pa. 1915

PRATT, J. A., Director, Williamson Free School of Mechanical Trades, Delaware Co., Pa. 1908

PRENTICE, D. B., Instructor in Mechanical Engineering, Yale University, New Haven, Conn. 1912

PRICE, CHAS. B., Instructor in Mathematics and Drawing, Boys Trade School; Assistant Supervisor of Evening Trade School, Worcester Trade School, Worcester, Mass. 1914

PRIESTER, G. C., Instructor in Mathematics and Mechanics, University of Minnesota, Minneapolis, Minn. 1910

PRIME, A. C., Practicing Engineer, 1008 Spruce St., Philadelphia, Pa. (Life Member) 1910

PRITCHARD, S. R., Professor of Electrical Engineering, Virginia Polytechnic Institute, Blacksburg, Va. 1914

PRYOR, F. L., Professor of Mechanical Engineering, Stevens Institute of Technology, Hoboken, N. J. 1908

PULLEN, M. W., Instructor in Electrical Engineering, Johns Hopkins University, Baltimore, Md. 1909

PUREYEAR, CHARLES, Dean and Professor of Mathematics, Texas A. and M. College, College Station, Texas 1901

RABER, B. F., Associate Professor of Mechanical Engineering, University of California, Berkeley, Cal. 1915
RADEBAUGH, G. H., Instructor in Machine Shop Management and Practice, University of Illinois, Urbana, Ill. 1914
RALSTON, J. C., Consulting Engineer, also Vice-President and Consulting Engineer, Pacific Coast Pipe Co. of Seattle, 2421 W. Mission Ave., Spokane, Wash. 1910
RANDALL, J. A., Pratt Institute, Brooklyn, N. Y. 1911
RANDALL, O. E., Professor of Mechanics and Mechanical Drawing and Dean of the University, Brown University, Providence, R. I. 1903
RANDOLPH, L. S., Professor of Mechanical Engineering and Dean of Engineering Dept., Virginia Polytechnic Institute, Blacksburg, Va. 1894
RANKIN, F. J., Electrical Engineer, Public Utilities Commission, Caiptol Bldg., Denver, Colo. 1913
RASMUSEN, J. E., Associate Professor of Applied Mechanics and Machine Design, University of Nebraska, Lincoln, Nebr. 1910
RAYMOND, F. N., Associate Professor of Rhetoric, University of Kansas, Lawrence, Kans. 1910
RAYMOND, H. M., Dean, Engineering Studies, Armour Institute of Technology, Chicago, Ill. 1903
RAYMOND, W. G., Dean of the College of Applied Science and Professor of Civil Engineering, State University of Iowa, Iowa City, Ia. 1893
RAYNER, WM. H., Instructor in Civil Engineering, University of Illinois, Urbana, Ill. 1913
READ, B. K., Engineer, Valecia Condensed Milk Co., Madison, Wis. 1913
REBER, LOUIS E., Dean, University Extension Division, University of Wisconsin, Madison, Wis. 1893
REED, K. W., Principal, Apprentice School Warner & Swasey Co., Cleveland, O. 1915
REED, PERCY L., Senior Instructor in Civil Engineering, Drexel Institute, Philadelphia, Pa. 1914
REES, HARRY P., c/o C. W. Rees, Saugus, Mass. 1910
REID, CLARENCE E., Professor of Electrical Engineering, Kansas State Agricultural College, Manhattan, Kans. 1907
REID, E. A., Instructor in Electrical Engineering, University of Minnesota, Minneapolis, Minn. 1916
REMICK, B. L., Professor of Mathematics, Kansas State Agricultural College, Manhattan, Kans. 1915
RETTGER, E. W., Assistant Professor of Applied Mechanics, Cornell University, Ithaca, N. Y. 1910
REW, IRWIN, Trustee of Northwestern University, 1128 Ridge Ave., Evanston, Ill. 1913

RICE, H. A., Professor of Mechanics and Structural Engineering, University of Kansas, Lawrence, Kans. 1915

RICHARDS, C. RUSS, Professor of Mechanical Engineering, in charge of the Department, University of Illinois, Urbana, Ill. 1895

RICHARDS, CHAS. RUSSELL, Director, Cooper Union, New York, N. Y. 1904

RICHARDS, T. E., Instructor, Michigan College of Mines, Houghton, Mich. 1910

RICHARDS, WM. H., Instructor in Wood Working, Manual Training and Pattern Making, University of Minnesota, Minneapolis, Minn. 1910

RICHARDSON, CLIFFORD, Consulting Engineer, Room 1615 Woolworth Bldg., 233 Broadway, New York, N. Y. 1913

RICHARDSON, G. R., Instructor in Steam Engineering, Franklin Union, Boston, Mass. 1912

RICHARDSON, M. R., Durham, N. C. 1910

RICHEY, J. J., Associate Professor of Civil Engineering, Texas A. & M. College, College Station, Tex. 1910

RICHTER, A. W., Dean of the School of Engineering, University of Montana, Bozeman, Mont. 1894

RICHTMYER, F. K., Assistant Professor of Physics, Cornell University, Ithaca, N. Y. 1910

RICKER, N. C., Professor of Architecture, University of Illinois; President, Illinois Board of Examiners of Architects; Chairman, Illinois Commission on Building Laws, Urbana, Ill. 1894

RIDDERVOLD, A. S., Assistant Professor of Civil Engineering, University of Nebraska, Lincoln, Nebr. 1912

RIDOUT, JOHN, Student Assistant in Mathematics, University of Virginia, University, Va. 1915

RIESENBERGER, ADAM, Registrar and Treasurer, Stevens Institute of Technology, Hoboken, N. J. 1908

RIGGS, H. E., Professor of Civil Engineering, University of Michigan, Ann Arbor, Mich. 1913

RIGGS, N. C., Professor of Applied Mechanics, Carnegie Institute of Technology, Pittsburgh, Pa. 1907

RIGGS, W. M., President and Consulting Professor of Engineering, Clemson Agricultural College of South Carolina, Clemson College, S. C. 1897

RISLEY, W. J., Professor of Mathematics, James Millikin University, Decatur, Ill. 1910

RITTENHOUSE, L. H., Associate Professor of Mechanical and Electrical Engineering, Haverford College, Haverford, Pa. 1906

ROARK, LOUIS, Instructor in Geology, Mississippi A. & M. College, Agricultural College, Miss. 1914

ROBBINS, A. G., Professor of Topographical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1894

ROBBINS, F. A., Assistant Professor of Electrical Engineering, Iowa State College, Ames, Ia. 1913

ROBERTS, H. A., Assistant Professor of Civil Engineering, University of Kansas, Lawrence, Kans. 1915

ROBERTS, MILNOR, Dean of the College of Mines, and Professor of Mining Engineering and Metallurgy, University of Washington, Seattle, Wash. 1910

ROBERTS, W. J., Chief Engineer, Inter-County River Improvement, 401 Court House, Tacoma, Wash. 1903

ROBERTSON, J. E., Professor of Mathematics, Highland Park College, Des Moines, Ia. 1913

ROBERTSON, JOHN E., Instructor in Civil Engineering, Mississippi A. & M. College, Agricultural College, Miss. 1914

ROBINSON, EDW., Professor of Mechanical Engineering, University of Vermont, Burlington, Vt. 1899

ROBINSON, F. H., Professor of Civil Engineering, Delaware College, Newark, Del. 1894

ROBINSON, M. B., Instructor in Co-ordination, University of Cincinnati, Cincinnati, O. 1915

ROCKWELL, E. H., Professor of Structural Engineering, Tufts College, Tufts College, Mass. 1907

ROCKWELL, ROBERT L., Head, Department of Electrical Engineering, Seattle Engineering School, Seattle, Wash. 1915

RODGERS, L. J., Head of Dept. of Machine Work, Wentworth Institute, Boston, Mass. 1912

RODHOUSE, T. J., Associate Professor of Hydraulic Engineering, University of Missouri, Columbia, Mo. 1904

RODMAN, W. S., Associate Professor of Electrical Engineering, University of Virginia, University, Va. 1915

ROE, J. W., Assistant Professor of Mechanical Engineering, Yale University, New Haven, Conn. 1908

ROEBER, E. F., Editor, *Metallurgical and Chemical Engineering*, 239 W. 39th St., New York, N. Y. 1909

ROGERS, RALPH, 1113 Lakeview Road, Cleveland, O. 1908

ROHRER, A. L., Electrical Superintendent, Schenectady Works, General Electric Co., Schenectady, N. Y. 1911

ROLLINS, A. P., Assistant Engineer, Medina Irrigation Co., San Antonio, Texas 1912

ROLLINS, E. B., Assistant Professor of Electrical Engineering, Tufts College, Tufts College, Mass. 1912

ROLLINS, JAS. W., President, Holbrook, Cabot & Rollins Corp., Engineers and Contractors, Boston, Mass. 1913

RONDINELLA, L. F., Head of Department of Drawing and Design, West Philadelphia High School for Boys, Philadelphia, Pa. .. 1903
ROOD, JAS. T., Professor (in charge) of Department of Electrical Engineering, Lafayette College, Easton, Pa. 1914
ROOT, J. E., Assistant Engineer, Division of Sewerage, Dept. of Public Service, Cincinnati, O. 1910
ROOT, R. E., Professor of Mathematics and Mechanics, Post-Graduate Dept., U. S. Naval Academy, Md. 1914
RORTY, M. C., Special Agent, American Telephone & Telegraph Co., 15 Dey St., New York, N. Y. 1912
ROSEBRUGH, T. R., Professor of Electrical Engineering, University of Toronto, Toronto, Ontario, Canada..... 1896
ROSING, A. S., Civil Engineer, 7066 Paulina St., Chicago, Ill. 1911
ROWELL, L. D., Assistant Professor of Electrical Engineering, Purdue University, LaFayette, Ind. 1910
ROWLAND, A. J., Dean and Professor of Electrical Engineering, Drexel Institute, Philadelphia, Pa. 1903
ROWLEY, F. B., Assistant Professor of Drawing and Descriptive Geometry, University of Minnesota, Minneapolis, Minn. 1910
ROYS, F. W., Instructor in Mechanical Engineering, Worcester Polytechnic Institute, Worcester, Mass. 1914
RUGG, H. O., Instructor in Education, School of Education, University of Chicago, Chicago, Ill. 1909
RUGGLES, S. L., Instructor in Civil Engineering, Thayer School of Civil Engineering, Dartmouth College, Hanover, N. H. 1910
RUSSELL, L. K., Professor of Chemistry, Clarkson School of Technology, Potsdam, N. Y..... 1910
RUSSELL, W. B., Director, Franklin Union, Boston, Mass..... 1903
RYAN, H. J., Professor of Electrical Engineering, Leland Stanford Junior University, Stanford University, Calif. 1901
RYAN, W. T., Assistant Professor of Electrical Engineering, University of Minnesota, Minneapolis, Minn. 1911
SADLER, H. C., Professor of Naval Architecture and Marine Engineering, University of Michigan, Ann Arbor, Mich..... 1907
SALAZAR, ARTURO EDMUNDO, Professor of Applied Physics and Electrical Engineering, Universidad de Chile, Santiago de Chile, S. A. 1914
SANBORN, F. B., Professor of Civil Engineering, Tufts College, Tufts College, Mass. 1912
SANBORN, F. E., Professor of Industrial Arts, Ohio State University, Columbus, O. 1899
SANDERS, W. H., Instructor in Farm Motors, Kansas State Agricultural College, Manhattan, Kans. 1915

SATTERFIELD, H. E., Professor of Mechanical Engineering, North Carolina College of A. and M. Arts, West Raleigh, N. C. 1909

SAVILLE, THORNDIKE, Assistant in Geology, Harvard University, Cambridge, Mass. 1915

SAWYER, A. R., Professor of Physics and Electrical Engineering, Michigan Agricultural College, East Lansing, Mich. 1907

SAYRE, H. A., Professor of Mathematics, University of Alabama, University, Ala. 1910

SCARBOROUGH, J. B., Instructor in Mathematics, North Carolina College of A. & M., Raleigh, N. C. 1915

SCHEALER, S. R., Assistant Professor of Electrical Engineering, Lehigh University, South Bethlehem, Pa. 1911

SCHERER, J. A. B., President, Throop College of Technology, Pasadena, Calif. 1913

SCHILDHAUER, EDWARD, General Manager, New Castle Construction Co., 30 Church St., New York, N. Y. 1912

SCHMIDT, E. C., Professor of Railway Engineering, University of Illinois, Urbana, Ill. 1907

SCHNEIDER, HERMAN, Professor of Civil Engineering and Dean of the College of Engineering, University of Cincinnati, Cincinnati, O. 1903

SCHUERMAN, W. H., Dean of the Engineering Department and Professor of Civil Engineering, Vanderbilt University, Nashville, Tenn. 1895

SCHWARZE, C. T., Assistant Professor of Civil Engineering, Cooper Union, New York, N. Y. 1912

SCIPIO, L. A., Dean and Professor of Mechanical Engineering, Robert College, Constantinople, Turkey 1910

SCOATES, DANIELS, Professor of Agricultural Engineering, Mississippi A. & M. College, Agricultural College, Miss. 1914

SCOTT, C. F., Professor of Electrical Engineering, Sheffield Scientific School, Yale University, New Haven, Conn. 1904

SCRUGHAM, J. G., Dean, College of Engineering, University of Nevada, Reno, Nev. 1914

SEARSON, J. W., Professor of the English Language, Kansas State Agricultural College, Manhattan, Kans. 1915

SEATON, L. F., Associate Professor of Agricultural Engineering, University of Nebraska, Lincoln, Nebr. 1914

SEATON, R. A., Professor of Applied Mechanics and Machine Design, Kansas State Agricultural College, Manhattan, Kans. 1912

SEAVER, H. L., Assistant Professor of English, Massachusetts Institute of Technology, Boston, Mass. 1908

SEELY, F. B., Associate in Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. 1913
SEERY, FRANCIS J., Assistant Professor of Civil Engineering, Cornell University, Ithaca, N. Y. 1908
SELBY, L. B., Inspector, Ohio Inspection Bureau, Columbus, O. 1911
SELLERS, ROBT. R., Assistant Professor of Civil Engineering, University of Florida, Gainesville, Fla. 1913
SEVER, G. F., Consulting Electrical Engineer, 13 Park Row, New York, N. Y. 1903
SEWARD, H. L., Instructor in Mechanical Engineering, Yale University, New Haven, Conn. 1910
SEXTON, F. H., President of the Nova Scotia Technical College, and Director of Technical Education, Halifax, Nova Scotia..... 1908
SEYFERT, S. S., Associate Professor of Electrical Engineering, Lehigh University, South Bethlehem, Pa. 1908
SHAAD, G. C., Professor of Electrical Engineering, University of Kansas, Lawrence, Kans. 1907
SHANE, ADOLPH, Dean of Engineering and Professor of Electrical Engineering, Highland Park College, Des Moines, Ia. 1907
SHATTUCK, E. L., Professor of Applied Mechanics and Thermodynamics, Louisiana Industrial Institute, Ruston, La. 1914
SHATTUCK, H. B., Associate Professor of Railroad Engineering, Pennsylvania State College, State College, Pa. 1906
SHATTUCK, L. H., Instructor in Civil Engineering, University of Colorado, Boulder, Colo. 1915
SHAW, H. B., Commissioner, Public Service Commission of Missouri, Jefferson City, Mo. 1907
SHELDON, SAMUEL, Professor of Physics and Electrical Engineering, Polytechnic Institute of Brooklyn, Brooklyn, N. Y..... 1903
SHELDON, S. R., Dean and Professor of Electrical Engineering, Government Institute of Technology, Shanghai, China 1914
SHENEHON, F. C., Dean of the College of Engineering, University of Minnesota, Minneapolis, Minn. 1909
SHEPARDSON, G. D., Professor of Electrical Engineering, University of Minnesota, Minneapolis, Minn. 1895
SHEPPARD, H. S., Assistant Professor of Electrical Engineering, University of Michigan, Ann Arbor, Mich. 1914
SHERMAN, C. E., Professor of Civil Engineering, Ohio State University, Columbus, Ohio 1907
SHIPLEY, S. C., Assistant Professor of Machine Construction, and Superintendent of Shops, University of Minnesota, Minneapolis, Minn. 1908
SHOOP, C. F., Assistant Professor of Experimental Engineering, University of Minnesota, Minneapolis, Minn. 1906

SHORT, R. L., Principal, West Technical High School, Cleveland, O. 1902
SHUSTER, J. W., Assistant Professor of Electrical Engineering, University of Wisconsin, Madison, Wis. 1907
SHUTT, J. C., Assistant Instructor in Steam and Gas Engineering, Kansas State Agricultural College, Manhattan, Kans. 1914
SIBLEY, F. H., Professor of Mechanical Engineering, University of Kansas, Lawrence, Kans. 1910
SIMMERING, S. L., Assistant Professor in Steam and Gas Engineering, Kansas State Agricultural College, Manhattan, Kans. ... 1913
SKELTON, R. H., Instructor in Civil Engineering, Yale University, New Haven, Conn. 1914
SLAYMAKER, P. K., Professor of Machine Design, University of Nebraska, Lincoln, Neb. 1910
SLICHTER, C. S., Professor of Applied Mathematics, University of Wisconsin; Consulting Engineer, U. S. Reclamation Service, Madison, Wis. 1906
SLICHTER, W. I., Professor of Electrical Engineering, Columbia University, New York, N. Y. 1911
SLOCUM, R. H., Professor of Civil Engineering, North Dakota Agricultural College, Agricultural College, N. D. 1903
SLUSS, A. H., Associate Professor of Mechanical Engineering, University of Kansas, Lawrence, Kans. 1915
SMALLWOOD, JULIAN C., Associate Professor of Mechanical Engineering, Syracuse University, Syracuse, N. Y. 1912
SMITH, ARTHUR BESSEY, Electrical Engineer, The Automatic Electric Co., Chicago, Ill. 1911
SMITH, A. G., Head of Dept. of Mathematics, State University of Iowa, Iowa City, Ia. 1909
SMITH, A. L., Professor of Drawing and Machine Design, Worcester Polytechnic Institute, Worcester, Mass. 1902
SMITH, E. B., Associate Mechanical Engineer, U. S. Office of Public Roads, Washington, D. C. 1906
SMITH, G. W., Assistant in Mathematics, University of Illinois, Urbana, Ill. 1912
SMITH, H. B., Professor of Electrical Engineering, and Director of Electrical Engineering Dept., Worcester Polytechnic Institute, Worcester, Mass. 1898
SMITH, HARRY E., Professor of Steam Engineering, and Supt. of Power Plant, Texas A. & M. College, College Station, Tex. 1895
SMITH, H. S. S., Professor of Civil Engineering, Princeton University, Princeton, N. J. 1894
SMITH, J. E., Assistant Professor of Civil Engineering, University of Illinois, Urbana, Ill. 1910

SMITH, J. HAMMOND, Professor of Civil Engineering, University of Pittsburgh, Pittsburgh, Pa. 1910
SMITH, JESSE M., Mechanical and Electrical Consulting Engineer, 32 W. 40th St., New York, N. Y. 1911
SMITH, L. S., Associate Professor of Topographic and Road Engineering, University of Wisconsin, Madison, Wis. 1903
SMITH, P. F., Professor of Mathematics, Sheffield Scientific School, Yale University, New Haven, Conn. 1908
SMITH, P. R., Educational Dept., General Electric Co., Pittsfield, Mass. 1913
SMITH, RICHARD R., Manager, College Department, The Macmillan Company, 66 Fifth Ave., New York, N. Y. 1914
SMITH, S. A., Assistant in Dept. of Architecture and Drawing, Kansas State Agricultural College, Manhattan, Kans. 1914
SMITH, WM. G., Assistant Professor of Kinematics and Descriptive Geometry, Armour Institute of Technology, Chicago, Ill. 1914
SMOLEY, C. K., Civil and Structural Engineer, International Textbook Co., Scranton, Pa. 1913
SMULL, T. J., JR., Dean of the College of Engineering and Professor of Civil Engineering, Ohio Northern University, Ada, O. 1907
SMYTH, H. L., Professor of Mining and Metallurgy and Director of the Mining and Metallurgical Laboratory, Harvard University, Cambridge, Mass. 1907
SNAVELY, T. R., Fellow of the Phelps Stokes Foundation, University of Virginia, University, Va. 1916
SNOW, CHAS. H., Dean of School of Applied Science and Professor of Civil Engineering, New York University, New York, N. Y. .. 1895
SNOW, O. L., Instructor in Physics and Electrical Engineering, Michigan Agricultural College, East Lansing, Mich. 1911
SNOW, WALTER B., Publicity Engineer, 136 Federal St., Boston, Mass. 1899
SOLBERG, H. C., Professor of Mechanical Engineering, South Dakota State College of A. and M. Arts, Brookings, S. D. 1894
SORENSEN, R. W., Professor of Electrical Engineering, Throop College of Technology, Pasadena, Calif. 1912
SPALDING, F. P., Professor of Civil Engineering, University of Missouri, Columbia, Mo. 1893
SPEIRS, CHAS. E., Vice-President, D. Van Nostrand Company, Publishers, New York, N. Y. 1914
SPENCE, D. W., Professor of Civil Engineering and Dean of Engineering, A. & M. College of Texas, College Station, Texas 1914
SPERR, F. W., Professor of Civil and Mining Engineering, Michigan College of Mines, Houghton, Mich. 1896

SPERRY, C. S., Assistant Professor of Engineering Mathematics, University of Colorado, Boulder, Colo. 1914
SPINNEY, L. B., Professor of Physics, Iowa State College, Ames, Ia. 1899
SPOFFORD, C. M., Hayward Professor of Civil Engineering, Massachusetts Institute of Technology, Boston, Mass. 1904
SPOONER, H. J., Director and Professor of Mechanical and Civil Engineering, Polytechnic School of Engineering, Regent St., W., London, England 1912
SPRAGUE, F. J., Consulting Engineer, 165 Broadway, New York, N. Y. 1911
SPRINGER, F. W., Professor of Electrical Engineering, University of Minnesota, Minneapolis, Minn. 1896
STANFORD, J. V., Professor of Mechanical Engineering, University of Pennsylvania, Philadelphia, Pa. 1907
STANLEY, W. E., Assistant in Hydraulics, Laboratory, Purdue University, LaFayette, Ind. 1915
STANTON, CHAS. B., Assistant Professor of Railway Engineering, Carnegie Institute of Technology, Pittsburgh, Pa. 1915
STAPLES, E. I., Instructor in Electrical Engineering, University of North Carolina, Chapel Hill, N. C. 1916
STARKEY, L. C., Professor of Mechanical Engineering, Drexel Institute, Philadelphia, Pa. 1914
STEARNS, W. D., 403 Hay St., Wilkinsburg, Pa. 1910
STEELE, J. N., Instructor in Foundry Work, Dickinson High School, Jersey City, N. J. 1912
STEINMAN, D. B., Special Assistant Engineer, New York Connecting Railroad, 68 William St., New York, N. Y. 1910
STEINMETZ, C. P., Chief Consulting Engineer, General Electric Co.; Professor of Electrophysics, Union University, Schenectady, N. Y. 1910
STELZNER, W. B., Adjunct Professor of Electrical Engineering, University of Arkansas, Fayetteville, Ark. 1914
STEPHENSON, S. A., JR., Instructor in Civil Engineering, Rutgers College, New Brunswick, N. J. 1910
STETSON, J. M., Adelbert College, Western Reserve University, Cleveland, O. 1914
STEVENS, A. C., Instructor in Electrical Engineering, Cornell University, Ithaca, N. Y. 1912
STEVENS, E. F., Librarian, Pratt Institute Free Library, and Director, School of Library Science, Brooklyn, N. Y. 1908
STEVENS, F. H., Assistant Professor Engineering Mechanics, College of Engineering, University of Michigan, Ann Arbor, Mich. 1915
STEVENS, J. FLOYD, Assistant Professor of Electrical Engineering, University of North Dakota, University, N. D. 1913

STEWARD, R. K., Associate in General Engineering Drawing, University of Illinois, Urbana, Ill. 1910

STEWART, C. E., Assistant Professor Mechanic Arts, Franklin Union, Boston, Mass. 1908

STEWART, G. W., Professor of Physics, State University of Iowa, Iowa City, Ia. 1910

STEWART, L. B., Professor of Surveying and Geodesy, Faculty of Applied Science and Engineering, Toronto University, Toronto, Ontario, Canada 1897

STEWART, O. M., Professor of Physics, University of Missouri, Columbia, Mo. 1909

STILLWELL, L. B., Consulting Engineer, 100 Broadway, New York, N. Y. 1912

STOCKWELL, F. C., Instructor in Electrical Engineering, Stevens Institute of Technology, Hoboken, N. J. 1914

STOEK, H. H., Professor of Mining Engineering, University of Illinois, Urbana, Ill. 1907

STONE, CHAS. W., Consulting Engineer, General Electric Co., Schenectady, N. Y. 1911

STONE, E. A., Professor of General Engineering, Queen's University, Kingston, Ontario 1907

STONE, JULIUS F., Trustee, The Ohio State University, c/o Seagrave Co., Columbus, O. 1913

STORM, E. R., Architect, 160 Fifth Ave., New York, N. Y. 1908

STOUT, O. V. P., Dean of the College of Engineering and Professor of Civil Engineering, University of Nebraska, Lincoln, Neb. 1894

STRAW, J. B., Instructor, University of Pennsylvania, Philadelphia, Pa. 1915

STRONG, ALBERT J., Instructor in Machine Design and Supt. of Shops, University of Florida, Gainesville, Fla. 1913

STREETER, R. L., Professor of Steam and Gas Engine Design, Rensselaer Polytechnic Institute, Troy, N. Y. 1913

STRINGFELLOW, H. A., Head of Dept. of Civil Engineering, Mechanics Institute, Rochester, N. Y. 1915

STURGES, T. L., JR., Professor of Electrical Engineering, Delaware College, Newark, Del. 1910

SULLIVAN, GEO. L., Professor of Mechanical Engineering, University of Santa Clara, Santa Clara, Calif. 1912

SURVEYER, ARTHUR, Consulting Engineer; Surveyer & Fregon, 56 Beaver Hall Hill, Montreal, P. Q. Canada 1914

SUTHERLAND, C. H., Instructor in Civil Engineering, Massachusetts Institute of Technology, Boston, Mass. 1914

SUTTIE, R. H., Instructor in Civil Engineering, Yale University, New Haven, Conn. 1912

SVENSEN, C. L., Instructor in Engineering Drawing, The Ohio State University, Columbus, O. 1909

SWAIN, G. F., Professor of Civil Engineering, Harvard University and Massachusetts Institute of Technology, Cambridge, Mass. 1893

SWAMY, B. N., Overseer, Public Works Vizianagram City Bldgs., Madras, South India 1913

SWARTZEL, K. D., Professor of Mathematics, The Ohio State University, Columbus, O. 1910

SWEENY, F. R. I., Rensselaer Polytechnic Institute, Troy, N. Y. .. 1912

SWEETSER, E. O., Assistant Professor of Civil Engineering, Washington University, St. Louis, Mo. 1910

SWEETSER, W. J., Head of Mechanical Engineering Department, University of Maine, Orono, Me. 1910

SWETT, G. W., Assistant Professor of Machine Design, Massachusetts Institute of Technology, Boston, Mass. 1907

SWIFT, WALTER, Secretary, Department of Applied Science, University of Sheffield, Sheffield, England..... 1902

SYPHERD, W. O., Professor of English, Delaware College, Newark, Del. 1914

TABOR, WM. H., Instructor in Industrial Engineering, Pennsylvania State College, State College, Pa. 1914

TALBOT, ARTHUR N., Professor of Municipal and Sanitary Engineering, and in charge of Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. 1893

TALBOT, H. P., Professor of Inorganic Chemistry, Massachusetts Institute of Technology, Boston, Mass. 1902

TALLMAN, WM. D., Professor of Mathematics, Montana State College of A. & M. Arts, Bozeman, Mont. 1914

TANZER, E. Dean, Assistant Professor of Electrical Engineering, Lafayette College, Easton, Pa. 1915

TAYLOR, I. I., Instructor in Applied Mathematics, Kansas State Agricultural College, Manhattan, Kans. 1915

TAYLOR, L. B., Torpedo Engineer, U. S. Naval Torpedo Station, Newport, R. I. 1912

TAYLOR, T. U., Professor of Civil Engineering and Dean of Engineering Department, University of Texas, Austin, Texas..... 1902

TAYLOR, W. C., Assistant Professor of Civil Engineering, Union University, Schenectady, N. Y. 1913

TAYLOR, WM. E., Professor of Applied Mathematics and Head of Dept., College of Applied Science, Syracuse University, Syracuse, N. Y. 1913

TELLEEN, J. M., Assistant Professor of English, Case School of Applied Science, Cleveland, O. 1908

TEMPLE, W. E. S., Assistant Professor of Electrical Engineering, University of Pennsylvania, Philadelphia, Pa. 1912

TERRELL, R. C., Professor of Highway Engineering, State University of Kentucky, Lexington, Ky.; State Commissioner of Public Roads, Frankford, Ky. 1913

THACH, C. C., President, Alabama Polytechnic Institute, Auburn, Ala. 1905

THALER, J. A., Professor of Electrical Engineering, Montana State College of A. and M. Arts, Bozeman, Mont. 1901

THAYER, H. R., Assistant Professor of Structural Design, Carnegie Institute of Technology, Pittsburgh, Pa. 1911

THOMAS, A. L., Instructor in Mechanical Drawing, Alabama Polytechnic Institute, Auburn, Ala. 1907

THOMAS, C. C., Head of the Department of Mechanical Engineering, Johns Hopkins University, Baltimore, Md. 1908

THOMAS, C. F., Instructor in Mathematics, Case School of Applied Science, Cleveland, O. 1909

THOMAS, CHAS. W., Instructor in Mechanical Drawing, University of Wisconsin, Madison, Wis. 1912

THOMAS, EVAN, Professor of Mechanics and Mathematics, University of Vermont, Burlington, Vt. 1908

THOMAS, FRANKLIN, Professor of Civil Engineering, Throop College of Technology, Pasadena, Calif. 1914

THOMAS, GEO. B., Professor of Electrical Engineering, Colorado College, Colorado Springs, Colo. 1911

THOMAS, H. A., Associate Professor of Civil Engineering, Rose Polytechnic Institute, Terre Haute, Ind. 1913

THOMAS, R. G., Professor of Mathematics and Engineering, The Citadel, The Military College of S. C., Charleston, S. C. 1894

THOMAS, R. P., Instructor in Applied Mathematics, University of Wooster, Wooster, O. 1914

THOMPSON, ALFRED, Instructor in Wood Working, University of Pennsylvania, Philadelphia, Pa. 1912

THOMPSON, FRANK F., Professor of Electrical Engineering, Rutgers College, New Brunswick, N. J. 1909

THOMPSON, G. S., Instructor in Mechanics, Rensselaer Polytechnic Institute, Troy, N. Y. 1907

THOMPSON, JAMES S., With McGraw-Hill Book Co., 239 W. 39th St., New York, N. Y. 1911

THOMSON, FRANCIS A., Head of Department of Mining and Metallurgy, State College of Washington, Pullman, Wash. 1915

THOMSON, R. D., Efficiency Engineer, General Electric Company, West Lynn, Mass. 1912
THORKELSON, H. J., Business Manager, University of Wisconsin, Madison, Wis. 1909
THORNBURG, C. L., Professor of Mathematics and Astronomy, Lehigh University, South Bethlehem, Pa. 1894
THORNTON, W. M., Professor of Applied Mathematics and Dean of the Department of Engineering, University of Virginia, University, Va. 1916
THOROUGHGOOD, R. W., Professor of Civil Engineering, University of Florida, Gainesville, Fla. 1913
THURBER, CHAS. H., Editor, Ginn & Co., 29 Beacon St., Boston, Mass. 1914
THURSTONE, L. L., Instructor in Descriptive Geometry and Drawing, University of Minnesota, Minneapolis, Minn. 1912
TIBBETTS, F. H., Civil Engineer, Alaska Commercial Bldg., San Francisco, Calif. 1908
TILDEN, C. J., Professor of Civil Engineering, Johns Hopkins University, Baltimore, Md. 1913
TIMBIE, W. H., Head of Applied Science Dept., Wentworth Institute, Boston, Mass. 1908
TITSWORTH, A. A., Professor of Civil Engineering, Dean of Engineering, Rutgers College, New Brunswick, N. J. 1903
TIVEY, J. P., Engineer, Australian General Electric Co., Mazda House, Wentworth Ave., Sydney, Australia 1912
TODD, M. E., Professor of Electrical Engineering and Mechanical Drawing, North Dakota State Science School, Wahpeton, N. D. 1913
TOPPING, A. N., Professor of Electrical Engineering, Purdue University, LaFayette, Ind. 1910
TOUCEDA, E. A., Professor of Metallurgy, Rensselaer Polytechnic Institute, Troy, N. Y. 1907
TOWER, C. H., Engineer, The Motor Devices Co., 1033 Williamson Bldg., Cleveland, Ohio 1911
TOWLE, W. M., Professor of Industrial Engineering, Clarkson College of Technology, Potsdam, N. Y. 1895
TOWNE, L. J., Supt. of Construction with Supervising Architect, University of Illinois, Urbana, Ill. 1911
TRACY, J. C., Professor of Civil Engineering, Yale University, New Haven, Conn. 1907
TRAILL, J. J., Lecturer on Hydraulics, University of Toronto, Toronto, Ont., Canada 1912
TRUMMELL, M. F., Waukegan, Ill. 1915
TUCKER, E. N., Instructor in Mathematics, University of Virginia, University, Va. 1915

TUCKER, J. I., Professor and Director of the School of Civil Engineering, University of Oklahoma, Norman, Okla. 1912
TURLEY, O. J., Civil and Irrigation Engineer, Santa Fe, New Mexico. 1912
TURNEAURE, F. E., Dean of the College of Engineering, University of Wisconsin, Madison, Wis. 1894
TURNER, C. A. P., Engineer, 2675 Lake of Isles Blvd., Minneapolis, Minn. 1913
TURNER, D. L., Deputy Engineer of Subway Construction, Public Service Commission for the First District, 606 W. 116th St., New York, N. Y. 1898
TURNER, W. P., Professor of Practical Mechanics, Purdue University LaFayette, Ind. 1900
TURNER, WM. S., Consulting Engineer, 1006 Spalding Bldg., Portland, Ore. 1911
TYLER, H. G., Instructor in Mechanical Engineering, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. 1915
TYLER, H. W., Professor of Mathematics, Massachusetts Institute of Technology, Boston, Mass. 1894
TYRRELL, H. G., Consulting Engineer and Author, Evanston, Ill... 1912.
UPSON, W. L., Associate Professor of Electrical Engineering, Union University, Schenectady, N. Y. 1910
USBY, E. L., Assistant Professor and Head of the Department of Manual Training, Ohio State University, Columbus, O. 1914
UX, RUSSELL R., Designer of Model Steam Engines and Locomotives, 806 North 8th St., Allentown, Pa. 1911
VAN BUSKIRK, H. C., Professor of Mathematics, Throop College, of Technology, Pasadena, Calif. 1911
VANDERBEEK, H. A., Dean and Professor of Civil Engineering, Government Institute of Technology, Shanghai, China..... 1915
VAN HAGAN, L. F., Associate Professor of Railway Engineering, University of Wisconsin, Madison, Wis. 1912
VAN NESS, L. G., Vice-President and General Manager, Merchants' Power Co., Memphis, Tenn. 1907
VAN ORNUM, J. L., Professor of Civil Engineering, Washington University, St. Louis, Mo. 1895
VAUGHAN, L. L., Assistant Professor of Experimental Engineering, North Carolina College of A. & M. Arts, West Raleigh, N. C. 1912
VEAL, C. B., Professor of Machine Design, Purdue University, LaFayette, Ind. 1910
VEDDER, H. K., Professor of Civil Engineering, Michigan Agricultural College, East Lansing, Mich. 1894
VEDDER, J. N., Professor of Thermodynamics, Union College, Schenectady, N. Y. 1910

VON ENDE, C. L., Professor of Chemistry, University of Idaho, Moscow, Idaho 1911

VON RITTER, ALEX, The Commonwealth Edison Co., N. W. Power Station, Chicago, Ill. 1913

VOSE, F. H., Professor of Mechanical Engineering, in charge of the department, Case School of Applied Science, Cleveland, O. 1907

VOTEY, J. W., Professor of Civil Engineering and Dean of the College of Engineering, University of Vermont, Burlington, Vt. 1902

WADDELL, J. A. L., Consulting Bridge Engineer, Waddell & Son, 800 Graphic Arts Bldg., Kansas City, Mo. 1893

WADSWORTH, F. L. O., Consulting and Advisory Engineer, Oliver Bldg., Pittsburgh, Pa. 1911

WADSWORTH, J. E., Engineer, American Bridge Co., 22 Morsemere Place, Yonkers, N. Y. 1895

WADSWORTH, M. E., Emeritus Dean and Professor of Mining Geology and Curator of the Mineralogical and Petrographical Collections, University of Pittsburgh, Pittsburgh, Pa. 1895

WAGNER, F. C., Professor of Mechanical and Electrical Engineering, Rose Polytechnic Institute, Terre Haute, Ind. 1911

WAGNER, S. T., Chief Engineer, The Philadelphia and Reading Railway Co., Philadelphia, Pa. 1911

WAGNER, W. C., 5522 N. Terrace Ave., Seattle, Wash. 1912

WAIT, J. C., Attorney and Counsellor-at-law, Engineering Jurisprudence, Woolworth Bldg., 233 Broadway, New York, N. Y. 1907

WAITE, E. B., Practicing Engineer, Millbury, Mass. 1914

WALDO, C. A., Thayer Professor of Mathematics and Applied Mechanics, Washington University, St. Louis, Mo. 1897

WALES, R. L., Professor of Mechanical Engineering and Dean of Engineering Depts., Rhode Island State College, Kingston, R. I. 1914

WALKER, AMASA, Manager of Educational Dept., Longmans, Green & Co., 443–449 Fourth Ave., New York, N. Y. 1914

WALKER, B. M., Vice-President, Director Engineering School, and Professor of Mathematics, Mississippi A. & M. College, Agricultural College, Miss. 1911

WALKER, CHAS. L., Assistant Professor of Sanitary Engineering, College of Civil Engineering, Cornell University, Ithaca, N. Y. 1910

WALKER, E. D., Professor of Hydraulic and Sanitary Engineering, Pennsylvania State College, State College, Pa 1895

WALKER, E. S., Assistant Professor of Mechanical Engineering, University of Florida, Gainesville, Fla. 1910

WALKER, P. F., Professor of Mechanical Engineering and Dean of the School of Engineering, University of Kansas, Lawrence, Kans. 1907

WALKER, WM. H., Professor of Chemical Engineering, Massachusetts Institute of Technology, Boston, Mass. 1912

WALLER, O. L., Vice-President and Professor of Mathematics and Civil Engineering, State College of Washington, Pullman, Wash. 1911

WALLIS, R. S., Assistant Professor of Civil Engineering, Iowa State College, Ames, Ia. 1911

WALTER, J. E., Professor of Mechanical Engineering, Highland Park College, Des Moines, Ia. 1915

WALTERS, G. D., In charge of Duty of Water Investigations, Irrigation Branch, Dept. of Interior, Calgary, Alberta, Canada ... 1913

WATERMAN, E. L., Associate Professor of Sanitary Engineering, Pennsylvania State College, State College, Pa. 1907

WATERMAN, I. F., Instructor in Civil Engineering, John B. Stetson University, De Land, Fla. 1916

WATERS, E. O., Instructor in Machine Design, Sheffield Scientific School, Yale University, New Haven, Conn. 1914

WATSON, H. L., Checker, Electric Boat Co., Groton, Conn. 1914

WATSON, J. W., Assistant Professor of Electrical Engineering, University of Wisconsin, Madison, Wis. 1910

WATTS, C. W., Professor of Mathematics, The Virginia Military Institute, Lexington, Va. 1911

WEAVER, L. H. A., 1123 Chapala St., Santa Barbara, Cal. 1914

WEBB, H. E., Head of the Department of Mathematics, Central Commercial and Manual Training High School, Newark, N. J. 1912

WEBBER, R. I., Head of Department of Drawing and Architectural Engineering, Pennsylvania State College, State College, Pa. .. 1907

WEBER, JOHN, Assistant Professor of Mechanical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1914

WEED, J. M., Member of Student Committee, General Electric Co., Pittsfield, Mass. 1911

WEINBACH, M. P., Assistant Professor of Electrical Engineering, University of Missouri, Columbia, Mo. 1915

WENDELL, G. V., Professor of Physics, Columbia University, New York, N. Y. 1900

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WENRICH, C. N., Professor of Physics, University of Pittsburgh, Pittsburgh, Pa. 1914

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WHITE, E. C., Instructor in Railroad Engineering, Cornell University, Ithaca, N. Y. 1913

WHITE, J. M., Professor of Architectural Engineering and Supervising Architect, University of Illinois, Urbana, Ill. 1900

WHITEHEAD, J. B., Professor of Electrical Engineering, Johns Hopkins University, Baltimore, Md. 1913

WHITIN, E. S., Assistant in Social Legislation, Columbia University; Secretary, Executive Committee, National Committee on Prisons and Prison Labor, New York, N. Y. 1913

WHITMORE, J. B., Shop Superintendent, West Technical High School, Cleveland, O. 1910

WHITTEMORE, H. L., Fayerweather Hall, Columbia University, New York, N. Y. 1909

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WIGLEY, W. R., Instructor in Mechanical Engineering, University of Pittsburgh, Pittsburgh, Pa. 1915

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WILEY, W. O., Publisher of Scientific Books, Secretary, John Wiley & Sons, New York, N. Y. 1904

WILLIAMS, C. C., Professor of Railway Engineering, University of Kansas, Lawrence, Kans. 1909

WILLIAMS, F. B., Professor of Mathematics, Clark College, Worcester, Mass. 1901

WILLIAMS, O. E., Assistant Professor of Engineering Drawing, The Ohio State University, Columbus, O. 1910

WILLIAMS, S. N., Professor Emeritus of Civil and Sanitary Engineering, Cornell College, 221 N. Lamon Ave, Chicago, Ill. 1893

WILLIAMS, W. S., Associate Professor of Topographical Engineering, University of Missouri, Columbia, Mo. 1913
WILLIS, A. J., Professor of Civil Engineering, South Dakota State College, Brookings, S. D. 1912
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WILLISTON, ARTHUR L., Principal, Wentworth Institute, Boston, Mass. 1897
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WILLSON, F. N., Professor of Graphics, Princeton University, Princeton, N. J. 1913
WILMORE, J. J., Dean, School of Engineering, and Professor of Mechanical Engineering, Alabama Polytechnic Institute, Auburn, Ala. 1894
WILSON, A. M., Professor of Electrical Engineering, University of Cincinnati, Cincinnati, O. 1907
WILSON, GEO. S., Associate Professor of Mechanical Engineering, University of Washington, Seattle, Wash. 1912
WILSON, JOHN F., Instructor in Electrical Engineering, University of Michigan, Ann Arbor, Mich. 1913
WILSON, W. L., Professor of Railroad Engineering, Lehigh University, South Bethlehem, Pa. 1909
WILSON, WILBUR M., Assistant Professor of Structural Engineering, University of Illinois, Urbana, Ill. 1914
WING, S. R., Acting Professor of Mechanical and Electrical Engineering, Pennsylvania College, Gettysburg, Pa. 1914
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WINTER, J. W., Instructor in Mechanical Engineering, Drexel Institute, Philadelphia, Pa. 1914
WIRICK, C. M., Instructor in Chemistry, Junior College of Crane Technical High School, Chicago, Ill. 1914
WIRT, F. A., Instructor in Farm Machinery, Kansas State Agricultural College, Manhattan, Kans. 1914
WITHAM, R. L., Electrical Engineer, Industrial Division, Westinghouse E. & M. Co., East Pittsburgh, Pa. 1914
WITHEY, M. O., Associate Professor of Mechanics, University of Wisconsin, Madison, Wis. 1910
WITHROW, JAMES R., Professor of Chemistry, Ohio State University, Columbus, O. 1907
WITTIG, GUSTAV, Professor of Electrical Engineering and Physics, University of Alabama, University, Ala. 1910

WOLF, HARRY J., Professor of Mining, Colorado School of Mines, Golden, Col. 1914
WOLFEL, P. L., Chief Engineer, McClintic-Marshall Construction Co., Pittsburgh, Pa. 1910
WOOD, A. J., Associate Professor of Railway Mechanical Engineering, Pennsylvania State College, State College, Pa. 1898
WOOD, E. H., Professor of Mechanics of Engineering, Cornell University, Ithaca, N. Y. 1910
WOODMAN, J. E., Professor of Geology and Director of Geological Museum, New York University, New York, N. Y. 1912
WOODS, H. C., Assistant Professor of Civil Engineering, Robert College, Constantinople, Turkey 1910
WOODWARD, R. S., President, Carnegie Institution of Washington, Washington, D. C. 1893
WOODWARD, S. M., Hydraulic Engineer, c/o Miami Conservancy District, Dayton, O. 1910
WOOSTER, L. F., Assistant Professor of Electrical Engineering, Oregon Agricultural College, Corvallis, Ore. 1912
WRAY, J. G., Chief Engineer, Central Group of Bell Telephone Companies, 212 W. Washington St., Chicago, Ill. 1911
WRIGHT, A. S., Professor of Modern Languages, Case School of Applied Science, Cleveland, O. 1907
WRIGHT, C. A., Associate Professor of Electrical Engineering, Iowa State College, Ames, Ia. 1916
WRIGHT, D. M., Sec'y and Treasurer, The Henry & Wright Mfg. Co., 52 Irving St., Hartford, Conn. 1914
WURTS, A. J., Professor and Head of Department Electrical Engineering, Carnegie Institute of Technology, Pittsburgh, Pa. 1910
WYMAN, F. T., Chief Engineer, Packard Electric Co., St. Catherines, Ont. 1912
YERZLEY, W. A., Secretary and Engineer, Nagle Re-Blade Knife Co., Newark, N. J. 1907
YOUNG, C. M., Associate Editor, *Coal Age* and *The Colliery Engineer*, Scranton, Pa. 1907
YOUNG, C. R., Assistant Professor of Structural Engineering, University of Toronto, Toronto, Ont. 1914
YOUNG, G. A., Head of the Department of Mechanical Engineering, Purdue University, LaFayette, Ind. 1907
ZELLER, J. W., Duval High School, Jacksonville, Fla. 1912
ZELNER, O. S., Assistant Professor of Surveying, University of Minnesota, Minneapolis, Minn. 1910

ZERN, EDW. N., Professor of Mining Engineering, West Virginia University, Morgantown, W. Va. 1914

ZIMMERMAN, O. B., Advisory Engineer to Sales and Manufacturing in Europe, 11–13 Rue d'Arenberg, Brussels, Belgium 1902

ZIWET, ALEXANDER, Professor of Mathematics, University of Michigan, Ann Arbor, Mich. 1897

ZOWSKI-ZWIERZCHOWSKI, S. J., Professor of Mechanical Engineering, University of Michigan, Ann Arbor, Mich. 1910

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Florida	7	New York	167	Brazil	2
Georgia	4	North Carolina	14	Canada	37
Idaho	4	North Dakota	7	Chile	3
Illinois	102	Ohio	84	China	5
Indiana	33	Oklahoma	9	England	2
Iowa	42	Oregon	10	Greece	1
Kansas	48	Pennsylvania	172	Hawaii Territory	1
Kentucky	6	Rhode Island	13	Hungary	1
Louisiana	10	South Carolina	7	India	4
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Akron, Municipal University of, Akron, O.	0	2	3
Alabama Polytechnic Institute, Auburn, Ala.	8	8	9
Alabama, University of, University, Ala.	5	5	4
Alberta, University of, Edmonton South, Alta, Canada	1	2	2
Alexander Hamilton Institute, New York, N. Y.	1	1	1
Arizona, University of, Tucson, Ariz.	2	2	4
Arkansas, University of, Fayetteville, Ark.	5	6	5
Armour Institute of Technology, Chicago, Ill.	5	6	7
Berea College, Berea, Ky.	0	0	1
Boston Industrial School for Boys, Boston, Mass.	2	2	2
Bradley Polytechnic Institute, Peoria, Ill.	2	2	2
Brooklyn Manual Training H. S., Brooklyn, N. Y.	1	1	1
Brooklyn Polytechnic Institute, Brooklyn, N. Y.	7	8	9
Brown University, Providence, R. I.	9	9	8
Bucknell University, Lewisburg, Pa.	2	2	2
Buffalo Technical H. S., Buffalo, N. Y.	1	0	0
California, University of, Berkeley, Cal.	7	4	7
Carnegie Institution, Washington, D. C.	1	1	1
Carnegie Institute of Technology, Pittsburgh, Pa.	11	14	14
Case School of Applied Science, Cleveland, O.	17	17	21
Chestnut Hill Academy, Chestnut Hill, Pa.	1	1	1
Chicago, University of, Chicago, Ill.	2	2	2
Christian Brothers College, St. Louis, Mo.	2	2	2
Cincinnati, University of, Cincinnati, O.	8	9	11
Citadel, The, Charleston, S. C.	2	2	2
Clark College, Worcester, Mass.	2	2	1
Clarkson College of Technology, Potsdam, N. Y.	4	4	4
Clemson A. & M. College, Clemson College, S. C.	6	5	5
Cleveland Technical H. S., Cleveland, O.	3	3	3
College of the City of N. Y., New York, N. Y.	1	1	1
Colorado College, Colorado Springs, Colo.	2	2	2
Colorado School of Mines, Golden, Colo.	1	1	3
Colorado State Agri. College, Fort Collins, Colo.	5	6	5
Colorado, University of, Boulder, Colo.	13	19	25
Columbia University, New York, N. Y.	16	15	16
Cooper Union, New York, N. Y.	6	6	6
Cornell College, Mt. Vernon, Ia.	2	1	1
Cornell University, Ithaca, N. Y.	27	25	26
Cumberland University, Lebanon, Tenn.	1	1	1

INSTITUTIONS REPRESENTED.

Dartmouth College, Hanover, N. H.	5	6	5
David Rankin Jr. Sch., St. Louis, Mo.	2	2	2
Delaware College, Newark, Del.	3	4	5
Denver, University of, Denver, Colo.	1	1	1
Dickinson H. S., Jersey City, N. J.	3	3	3
Dorchester H. S., Dorchester Center, Mass.	1	1	1
Drexel Institute, Philadelphia, Pa.	9	11	11
Duval High School, Jacksonville, Fla.	1	1	1
Escola de Engenharia, Porto Alegre, Brazil	1	1	1
Florida, University of, Gainesville, Fla.	5	5	5
Franklin Institute, Philadelphia, Pa.	1	1	1
Franklin Union, Boston, Mass.	5	5	4
George Washington University, Washington, D. C.	2	3	3
Georgia School of Technology, Atlanta, Ga.	1	2	2
Girard College, Philadelphia, Pa.	1	1	1
Government Institute of Technology, Shanghai, China	0	2	3
Harvard University, Cambridge, Mass	15	14	17
Haverford College, Haverford, Pa.	1	1	1
Hebrew Technical Institute, New York, N. Y.	1	1	1
Highland Park College, Des Moines, Ia.	4	4	3
Idaho, University of, Moscow, Ida.	7	4	4
Illinois, University of, Urbana, Ill.	50	47	47
Indiana University, Bloomington, Ind.	1	1	2
Instituto Technico Professional, Porto Alegre, Brazil	2	2	2
International Correspondence Schools, Scranton, Pa.	5	4	3
Iowa State College, Ames, Ia.	17	21	29
Iowa, State University of, Iowa City, Ia.	7	8	7
James Millikin University, Decatur, Ill.	1	2	1
Johns Hopkins University, Baltimore, Md.	4	5	5
John B. Stetson University, De Land, Fla.	0	0	1
Junior College of Crane Technical H. S., Chicago, Ill.	0	1	1
Kansas City M. T. H. S., Kansas City, Mo.	1	1	1
Kansas City N. E. H. S., Kansas City, Mo.	0	1	1
Kansas State Agri. College, Manhattan, Kans.	11	18	32
Kansas, University of, Lawrence, Kans.	7	16	16
Kentucky, State University of, Lexington, Ky.	4	4	3
Lafayette College, Easton, Pa.	4	3	5
Lehigh University, South Bethlehem, Pa.	14	14	14
Leland Stanford Jr. Univ., Stanford Univ., Calif.	3	3	4
Lewis Institute, Chicago, Ill.	3	3	3
Louisiana Industrial Institute, Ruston, La.	2	3	3
Louisiana State University, Baton Rouge, La.	3	3	3
McGill University, Montreal, Canada	5	5	5
McKinley High School, St. Louis, Mo.	1	1	1

INSTITUTIONS REPRESENTED.

McKinley M. T. S., Washington, D. C.	1	1	1
Maine, University of, Orono, Me.	9	7	8
Manitoba, University of, Winnipeg, Man.	3	3	3
Marquette University, Milwaukee, Wis.	1	1	1
Massachusetts Agri. College, Amherst, Mass.	1	1	1
Massachusetts Inst. of Tech., Boston, Mass.	38	36	33
Mechanics Institute, Rochester, N. Y.	1	1	3
Miami University, Oxford, O.	0	0	1
Michigan Agri. College, East Lansing, Mich.	10	11	10
Michigan College of Mines, Houghton, Mich.	8	7	10
Michigan, University of, Ann Arbor, Mich.	20	24	28
Milwaukee Public Schools, Milwaukee, Wis.	1	1	1
Minnesota, University of, Minneapolis, Minn.	31	31	28
Mississippi A. & M. College, Agricultural College, Miss.	8	7	8
Mississippi, University of, University, Miss.	1	1	2
Missouri School of Mines, Rolla, Mo.	2	2	4
Missouri, University of, Columbia, Mo.	14	15	15
Montana Agri. College, Bozeman, Mont.	5	5	5
Montana, University of, Missoula, Mont.	1	2	2
Nebraska, University of, Lincoln, Nebr.	13	13	14
Nevada, University of, Reno, Nev.	3	3	3
Newark Manual Training H. S., Newark, N. J.	1	1	1
New Hampshire College, Durham, N. H.	2	1	4
New Mexico Coll. of A. & M. Arts, State College, N. M.	3	3	3
New York Evening High School for Men, New York, N. Y.	1	1	1
New York Military College, Cornwall-on-Hudson, N. Y.	0	0	1
New York University, New York, N. Y.	7	7	8
North Carolina Agri. College, West Raleigh, N. C.	4	4	5
North Carolina, University of, Chapel Hill, N. C.	5	6	8
North Dakota Agri. College, Agricultural College, N. D.	2	2	2
North Dakota State Science School, Wahpeton, N. D.	1	1	1
North Dakota, University of, University, N. D.	5	5	5
Northwestern University, Evanston, Ill.	6	6	8
Notre Dame, University of, Notre Dame, Ind.	0	1	1
Norwegian Technical University, Trondhjem, Norway	0	1	1
Norwich University, Northfield, Vt.	1	1	1
Nova Scotia Technical College, Halifax, N. S.	2	2	2
Ohio Northern University, Ada, O.	2	2	2
Ohio State University, Columbus, O.	29	28	26
Ohio Wesleyan University, Delaware, O.	0	1	1
Oklahoma A. & M. College, Stillwater, Okla.	4	5	5
Oklahoma, University of, Norman, Okla.	4	4	4
Oregon Agri. College, Corvallis, Ore.	5	5	4
Oregon, University of, Eugene, Ore.	3	3	2

Oshkosh Normal School, Oshkosh, Wis.	0	0	1
Pasadena High School, Pasadena, Calif.	1	1	1
Pennsylvania College, Gettysburg, Pa.	1	1	2
Pennsylvania Military College, Chester, Pa.	2	2	2
Pennsylvania State College, State College, Pa.	19	25	21
Pennsylvania, University of, Philadelphia, Pa.	26	30	28
Pittsburgh Central H. S., Pittsburgh, Pa.	1	1	1
Pittsburgh, University of, Pittsburgh, Pa.	10	22	23
Polytechnic School of Engineering, Regents' St., London	1	1	1
Pomona College, Claremont, Calif.	1	1	1
Pratt Institute, Brooklyn, N. Y.	7	7	5
Princeton University, Princeton, N. J.	3	4	7
Purdue University, LaFayette, Ind.	20	19	22
Queen's University, Kingston, Can.	0	2	1
Queensland, University of, Brisbane, Australia	2	2	2
Redlands, University of, Redlands, Calif.	1	0	1
Reed College, Portland, Ore.	1	1	2
Rensselaer Polytechnic Institute, Troy, N. Y.	8	8	5
Rhode Island State College, Kingston, R. I.	2	1	2
Rice Institute, Houston, Tex.	0	0	1
Robert College, Constantinople, Turkey	2	3	3
Rose Polytechnic Institute, Terre Haute, Ind.	4	4	4
Rutgers College, New Brunswick, N. J.	6	6	6
Santa Clara, University of, Santa Clara, Calif.	1	1	1
Saskatchewan, University of, Saskatoon, Canada	0	0	1
Seattle Engineering School, Seattle, Wash.	0	0	1
Sheffield, University of, Sheffield, England	1	1	1
Southern California University, Los Angeles, Calif.	1	1	2
South Dakota State College, Brookings, S. D.	6	5	5
South Dakota, University of, Vermilion, S. D.	1	1	3
St. Johns University, Shanghai, China	1	1	1
Stevens Institute of Technology, Hoboken, N. J.	14	16	15
Swarthmore College, Swarthmore, Pa.	2	2	2
Sydney, University of, Sydney, Australia	1	1	1
Syracuse University, Syracuse, N. Y.	8	7	9
Technical High School, Edmonton, Alberta, Canada	1	1	1
Temple University, Philadelphia, Pa.	0	0	1
Tennessee, University of, Knoxville, Tenn.	2	3	4
Texas A. & M. College, College Station, Tex.	9	10	12
Texas, University of, Austin, Tex.	4	6	5
Texas State School of Mines and Metallurgy, Fort Bliss, Tex.	0	1	1
Throop College of Technology, Pasadena, Calif.	8	8	8
Tokyo Imperial University, Tokyo, Japan	1	1	1

Toledo University, Toledo, O.	0	1	1
Toronto, University of, Toronto, Canada	10	12	13
Trinity College, Hartford, Conn.	0	1	1
Tufts College, Tufts College, Mass.	12	14	13
Tulane University, New Orleans, La.	3	4	4
Union University, Schenectady, N. Y.	7	7	9
United States Naval Academy, Annapolis, Md.	0	2	2
Universidad de Chile, Santiago, Chile	3	3	3
Utah, University of, Salt Lake City, Utah	6	5	4
Valparaiso University, Valparaiso, Ind.	1	1	2
Vanderbilt University, Nashville, Tenn.	1	1	1
Vermont, University of, Burlington, Vt.	8	8	8
Virginia Military Institute, Lexington, Va.	3	3	2
Virginia Polytechnic Institute, Blacksburg, Va.	4	4	3
Virginia, University of, University, Va.	0	6	15
Washington & Lee University, Lexington, Va.	1	2	1
Washington State College, Pullman, Wash.	1	1	2
Washington University, St. Louis, Mo.	6	6	6
Washington, University of, Seattle, Wash.	13	12	13
Wentworth Institute, Boston, Mass.	12	12	12
West Philadelphia H. S. for Boys, Philadelphia, Pa.	1	1	1
Western Reserve Univ., Adlebert College, Cleveland, O.	0	0	1
West Technical H. S., Cleveland, O.	0	0	2
West Virginia University, Morgantown, W. Va.	7	7	8
Whitman College, Walla Walla, Wash.	3	3	2
Williamson Free School, Williamson School, Pa.	2	2	2
Wisconsin, University of, Madison, Wis.	26	29	27
Wooster, University of, Wooster, O.	0	1	1
Worcester Polytechnic Institute, Worcester, Mass.	15	16	16
Worcester Trade School, Worcester, Mass.	1	2	2
Wyoming, University of, Laramie, Wyo.	4	3	4
Yale University, New Haven, Conn.	23	23	22

GENERAL SUMMARY OF MEMBERSHIP.

MARCH 15, 1916.

Institutions Represented.	
Colleges and Universities Teaching Engineering.	
Domestic	158
Foreign	20
Manual, High, Correspondence and Trade Schools	24
Total Institutions	202
Institutional Members	55
Members	1,447
Total Members	1,502

GROWTH OF MEMBERSHIP.*

Aug.	20, 1894	156	
Sept.	2, 1895	184	
Aug.	20, 1896	200	(about)
Aug.	16, 1897	203	
Aug.	18, 1898	226	
Aug.	17, 1899	238	
July	2, 1900	249	
June	29, 1901	261	
June	27, 1902	253	
July	1, 1903	271	
Sept.	1, 1904	325	
June	28, 1905	379	
July	2, 1906	400	
July	1, 1907	415	
June	27, 1908	675	
June	24, 1909	759	
June,	23, 1910	848	
June	27, 1911	1,071	
June	1912	1,102	
June,	1913	1,158	
March,	1914	1,291	Institutional members.....48
July	1, 1915	1,403	Institutional members.....49
March,	1916	1,447	Institutional members.....55

* These figures are taken from the reports of the Secretary, presented at the annual meetings, except the figures for 1914 which were taken from the corresponding year book.

CONSTITUTION

OF THE

Society for the Promotion of Engineering Education

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1. NAME—This organization shall be called the SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.

2. MEMBERS—Membership in the Society shall be of two general classes, Institutional and Individual.

Institutional members shall be educational institutions giving instruction in engineering and scientific subjects.

Individual membership shall be of two classes, Active and Honorary. It shall comprise those persons who occupy or have occupied responsible positions in the work of engineering instruction, together with engineering practitioners and other persons interested in engineering education.

Honorary Members of the Society shall be such persons as may be recommended by unanimous vote of the Council after a letter ballot. In taking this ballot, the Secretary is directed to close the polls one month after the names of the candidates are sent out. Councilors not heard from will be counted in favor of the candidate. Honorary Members shall not have the right to vote, shall not be eligible to office, and shall not be required to pay any fees or dues.

Any individual member not in arrears for dues may become a Life Member by paying Fifty Dollars into the treasury of the Society at one time.

The name of each candidate for individual membership shall be proposed in writing to the Council by two members by whom he is personally known. In the case of a candidate for Institutional membership the name shall be proposed by any member familiar with the work of the institution on receipt of an application signed by a responsible officer thereof. Such name, if approved by the Council, shall be voted on by the Society at the annual meeting, a vote of three-fourths of those present being required to elect; or, during the period between annual meetings, an affirmative letter ballot of three-fourths of those members of the Council whose vote reaches the Secretary within one month from the time of sending out the name of the candidate shall elect. Such letter ballot elections shall be credited to the previous annual meeting and dues shall date from that time, except that elections to membership occurring after

February 1 shall be credited to the next annual meeting and the dues for the remainder of the year shall be one-half the annual dues.

3. OFFICERS—There shall be a President, two Vice-Presidents, a Secretary and a Treasurer, each to hold office for one year, or until their successors have been elected and have qualified. The Officers shall be elected by ballot of the Society at the annual meeting.

4. COUNCIL—The Council of the Society shall consist of twenty-one elective members, one-third of whom shall retire annually. The Officers and the Past Presidents of the Society shall be members of the Council ex-officio.

Any member of the Society shall be eligible to election to the Council, provided that not more than one elective member shall be from any one college.

Members of the Council shall be elected by ballot by the Society at its annual meeting.

The Council shall constitute a general executive body of the Society, pass on proposals for membership, elect candidates ad interim, attend to all business of the Society, receive and report on propositions for amendments to the constitution, and shall have power to fill temporary vacancies in the offices.

The President of the Society shall be Chairman of the Council, and the Secretary of the Society shall be Secretary of the Council and shall keep the minutes of its meetings and an accurate record of all its actions.

When votes taken by letter ballot of the Council shall be required, all votes which reach the Secretary within one month from the time of sending out the ballots shall be counted, but votes reaching the Secretary later than the time here specified shall not be counted.

5. NOMINATING COMMITTEE—The Nominating Committee shall consist of the Past Presidents and the seven elective members of the Council retiring the following year, provided, however, that if, of this committee, the number in attendance at any meeting be less than five, the President shall make appointments so as to form a committee of five.

6. FEES AND DUES—The admission fee for an individual, active member, which shall also include the first year's dues, shall be Four Dollars ($4.00), and the annual dues, which shall include the subscription price of the BULLETIN, provided for in Art. 8, shall be Four Dollars ($4.00), payable at the time of the annual meeting.

The admission fee for institutional members, which shall also include the first year's dues, shall be Ten Dollars ($10.00), and the annual dues, which shall include the subscription price of three copies of the BULLETIN, and of the PROCEEDINGS, provided for in Art. 8, shall be Ten Dollars ($10.00), payable at the time of the annual meeting.

The fiscal year shall end with the close (or adjournment) of the annual

meeting. Those in arrears more than one year shall not be entitled to vote, nor to receive copies of the PROCEEDINGS, and such members shall be notified thereof by the Secretary one month previous to the annual meeting. Any member who has been in arrears more than two years and duly notified by the Secretary, shall be dropped from the roll, until such arrearages are paid.

7. MEETINGS—There shall be an annual meeting at such time and place as the Society at the preceding annual meeting, or the Council may determine.

8. PUBLICATIONS—The publications of the Society shall include an annual volume of PROCEEDINGS, to be published and distributed to the membership as soon as possible after the annual meeting; and a monthly BULLETIN, to be published from September to June, inclusive.

9. AMENDMENTS—This Constitution may be amended by a two-thirds vote of those present at any regular meeting of the Society provided the amendment shall have been approved by the Council by letter ballot by a two-thirds vote of the members voting.

BY-LAWS OF THE SOCIETY AND RULES GOVERNING THE COUNCIL.

First. The Officers of the Society shall constitute a Committee to arrange for the annual meeting and to prepare a program for the same.

Second. The President, the Secretary and the Treasurer shall constitute an Executive Committee which shall have charge of all matters relating to the expenditure of money of the Society, the making of appropriations to Committees and for other purposes, the making of contracts, the approval of bills, and also during the period between the meetings of the Council shall have charge of other business affairs of the Society.

Third. Expenditures of money may be made only in accordance with a definite appropriation or by direct vote of the Executive Committee.

Fourth. Reading of papers shall be limited to fifteen minutes each or to such other time as may be designated by the Program Committee, and abstracts of papers of about three hundred words shall be printed when practicable, and distributed in advance to the members.

Fifth. The time occupied by each person in the discussion of any paper shall not exceed five minutes.

Sixth. The President, the Secretary and the retiring Secretary shall constitute a Publication Committee, of which the Secretary shall be Chairman, to edit and have charge of the publication of the monthly BULLETIN and the PROCEEDINGS of the Society, except the volume of Proceedings of the last convention, which shall be edited by the retiring

Secretary. If at any time there be no retiring Secretary the retiring President shall be a member of this Committee.

Seventh. The Officers, members of the Council and members of the local Convention Committee shall constitute a Committee on Sociability to introduce members and guests to each other at the annual meetings and in general to promote a spirit of good fellowship.

Eighth. The subscription price of the BULLETIN shall be One Dollar per year, payable in advance.

Ninth. Additions or amendments may be made to these By-Laws at any regular meeting of the Society, on the recommendation of the Council by a two-thirds affirmative vote of the Council and of the Society.

PUBLICATIONS.

The publications of the Society can be obtained from the Secretary. The current issues are distributed gratuitously to members in good standing, one copy of each to each individual member and three to each institutional member. The price of the bound volumes of the PROCEEDINGS of former years is $2.50 to non-members, $2.00 to public libraries, and $1.50 to members for their own libraries.

The BULLETIN is issued monthly from September to June. The price to non-members is $2.00 per year. Libraries may order the BULLETIN and the PROCEEDINGS at $4.00 per year.

Reprints of papers may be ordered when the papers are in type form, and either with or without covers, at a price depending upon the number of pages and copies desired.

PAST OFFICERS

Special Committee for Division B, Engineering Education, World's Engineering Congress, 1893.

IRA O. BAKER, Chairman, HENRY T. EDDY, Vice-Chairman,
WM. R. HOAG, Secretary, C. FRANK ALLEN, Sec'y, *pro tem.*,
MORTIMER E. COOLEY, SAMUEL W. STRATTON,
STORM BULL.*

PRESIDENTS

DE VOLSON WOOD,* 1893–4, FRED W. McNAIR, 1904–5,
GEORGE F. SWAIN, 1894–5, CHARLES L. CRANDALL, 1905–6,
MANSFIELD MERRIMAN, 1895–6, DUGALD C. JACKSON, 1906–7,
HENRY T. EDDY, 1896–7, CHARLES S. HOWE, 1907–8,
JOHN B. JOHNSON,* 1897–8, FRED. E. TURNEAURE, 1908–9,
THOS. C. MENDENHALL, 1898–9, HENRY S. MUNROE, 1909–10,
IRA O. BAKER, 1899–1900, ARTHUR N. TALBOT, 1910–11,
FRANK O. MARVIN,* 1900–1, WM. G. RAYMOND, 1911–12,
ROBERT FLETCHER, 1901–2, WM. T. MAGRUDER, 1912–13.
CALVIN M. WOODWARD,* 1902–3, G. C. ANTHONY, 1913–14.
C. FRANK ALLEN, 1903–4, ANSON MARSTON, 1914–15.

VICE-PRESIDENTS

SAMUEL B. CHRISTY,* GEORGE F. SWAIN, 1893–4,
ROBERT H. THURSTON,* FRANK O. MARVIN,* 1894–5,
FRANK O. MARVIN,* CADY STALEY, 1895–6,
JOHN GALBRAITH,* JOHN M. ORDWAY, 1896–7,
THOMAS C. MENDENHALL, HARRY W. TYLER, 1897–8,
C. FRANK ALLEN, HENRY W. SPANGLER,* 1898–9,
ROBERT FLETCHER, CHARLES D. MARX, 1899–1900,
THOMAS GRAY,* ALBERT KINGSBURY, 1900–1,
STORM BULL,* CALVIN M. WOODWARD,* 1901–2,
JOHN J. FLATHER, FRED W. McNAIR, 1902–3,
CHARLES L. CRANDALL, JAMES C. NAGLE, 1903–4,
CLEMENT R. JONES, ELWOOD MEAD, 1904–5,
WILLIAM T. MAGRUDER, JOHN P. JACKSON, 1905–6,
R. C. CARPENTER, CHARLES S. HOWE, 1906–7,
CLARENCE A. WALDO, WILLIAM G. RAYMOND, 1907–8,
MORTIMER E. COOLEY, OLIN H. LANDRETH, 1908–9,
ARTHUR N. TALBOT, ARTHUR L. WILLISTON, 1909–10.
MILO S. KETCHUM, WILLIAM KENT, 1910–11,
G. C. ANTHONY, F. B. GILBRETH, 1911–12,
L. S. MARKS, F. W. SPERR, 1912–13,
H. S. JACOBY, D. C. HUMPHREYS, 1913–14.
H. H. NORRIS, C. RUSS RICHARDS, 1914–15.

* Deceased.

TREASURERS

STORM BULL,* 1893–5,
JOHN J. FLATHER, 1895–9,
CLARENCE A. WALDO, 1899–1902,
ARTHUR N. TALBOT, 1902–4,
FRED. P. SPALDING, 1904–6,
ANSON MARSTON, 1906–7.

SECRETARIES

JOHN B. JOHNSON,* 1893–5,
C. FRANK ALLEN, 1895–7,
ALBERT KINGSBURY, 1897–9,
EDGAR MARBURG, 1899–1900,
HENRY S. JACOBY, 1900–2,
CLARENCE A. WALDO, 1902–4,
MILO S. KETCHUM, 1904–6,
WILLIAM T. MAGRUDER, 1906–7,
ARTHUR L. WILLISTON, 1907–9,
HENRY H. NORRIS, 1909–14.

MEMBERS OF PREVIOUS COUNCILS

Terms of Office Expired in 1894.

M. E. COOLEY,
W. R. HOAG,
H. T. EDDY,
S. W. ROBINSON,*
R. H. THURSTON.*
W. F. M. GOSS,
H. W. SPANGLER,*

Terms of Office Expired in 1895.

H. T. BOVEY,*
MANSFIELD MERRIMAN,
W. H. BURR,
W. G. RAYMOND,
DE VOLSON WOOD.*
O. H. LANDRETH,
G. F. SWAIN,

Terms of Office Expired in 1896.

I. O. BAKER,
JOHN GALBRAITH,*
STORM BULL,*
J. B. JOHNSON,*
C. D. MARX.
S. B. CHRISTY,*
F. O. MARVIN,*

Terms of Office Expired in 1897.

H. T. EDDY,
ALBERT KINGSBURY,
J. J. FLATHER,
L. S. RANDOLPH,
R. H. THURSTON.*
J. P. JACKSON,
S. W. ROBINSON,*

Terms of Office Expired in 1898.

C. F. ALLEN,
J. M. ORDWAY,
C. L. MEES,
W. G. RAYMOND,
R. S. WOODWARD.
MANSFIELD MERRIMAN,
CADY STALEY,

---

* Deceased.

MEMBERS OF PREVIOUS COUNCILS.

Terms of Office Expired in 1899.

Arthur Beardsley,	Robert Fletcher,	John Galbraith,*
William Kent,	T. C. Mendenhall,	W. H. Schuerman,
	M. E. Wadsworth.	

Terms of Office Expired in 1900.

Storm Bull,*	L. G. Carpenter,	Albert Kingsbury,
F. O. Marvin,*	R. B. Owens,	R. L. Sackett,
	R. H. Thurston.*	

Terms of Office Expired in 1901.

T. N. Drown,*	M. A. Howe,	I. N. Hollis,
Gaetano Lanza,	P. C. Ricketts,	R. G. Thomas,
	C. M. Woodward.*	

Terms of Office Expired in 1902.

Brown Ayres,	G. W. Bissell,	J. J. Flather,
W. T. Magruder,	F. W. McNair,	J. M. Porter,
	A. J. Wood.	

Terms of Office Expired in 1903.

C. F. Allen,	D. C. Jackson,	N. C. Ricker,
J. P. Brooks,	Edgar Marburg,	A. L. Williston,
	J. C. Nagle.	

Terms of Office Expired in 1904.

W. F. M. Goss,	Thomas Gray,*	D. C. Humphreys,
O. H. Landreth,	W. G. Raymond,	L. E. Reber,
	L. S. Randolph.	

Terms of Office Expired in 1905.

Wm. Esty,	L. J. Johnson,	W. M. Towle,
H. S. Jacoby,	Elwood Mead,	J. L. Van Ornum,
	Edward Orton, Jr.	

Terms of Office Expired in 1906.

John Galbraith,*	Charles S. Howe,	Walter M. Riggs,
Frederick P. Spalding,	Henry W. Spangler,*	Fred. E. Turneaure,
	Herman K. Vedder.	

Terms of Office Expired in 1907.

Thomas Gray,*	James C. Nagle,	William G. Raymond,
Louis E. Reber,	Arthur N. Talbot,	Clarence A. Waldo,
	Robert S. Woodward.	

Terms of Office Expired in 1908.

Victor C. Alderson,	Arthur H. Ford,	H. P. Talbot,
Francis C. Caldwell,	Henry S. Munroe,	A. L. Williston,
	Frederick W. Speer.	

* Deceased.

MEMBERS OF PREVIOUS COUNCILS.

Terms of Office Expired in 1909.

Charles F. Burgess, John F. Hayford, Thomas W. Palmer,
Arthur M. Greene, Jr., Milo S. Ketchum, Joseph A. Thaler,
Henry H. Norris.

Terms of Office Expired in 1910.

Fred W. Atkinson, Walter B. Russell, William S. Franklin,
Mortimer E. Cooley, William Kent, Charles F. Scott,
Harold B. Smith.

Terms of Office Expired in 1911.

Lester P. Breckenridge, Lewis J. Johnson, William G. Raymond,
Thomas Gray,* William T. Magruder, Herman Schneider,

* Deceased.

Clarence A. Waldo.

Terms of Office Expired in 1912.

Frank H. Constant, H. Wade Hibbard, Edw. R. Maurer,
Frederick A. Goetze, John H. Leete, John C. Ostrup,
Chas. Russ Richards.

Terms of Office Expired in 1913.

G. H. Benjamin, E. E. Brydone-Jack, J. F. Hayford,
G. W. Bissell, W. H. P. Creighton, C. Russ Richards,
H. W. Tyler.

Terms of Office Expired in 1914.

J. E. Boyd, F. L. Emory, J. A. L. Waddell,
C. H. Crouch, C. E. Magnusson, A. J. Wood,
H. H. Stoek.

Terms of Office Expired in 1915.

F. L Bishop, O. P. Hood, W. B. Snow,
G. R. Chatburn, G. D. Shepardson, J. C. Tracy,
F. P. McKibben.

DECEASED MEMBERS.

Name.	Year of Election.	Date of Death.	Memoir. Vol. Page.
C. L. Adams	1904	Sept. 16, 1914.	XXII, 414
Philip R. Alger	1909	February 23, 1912.	XX, Part II, 491
William A. Anthony	1907	May 29, 1908.	XVI, 409
George W. Atherton	1904	July 24, 1906.	XIV, 292
Warren Babcock	1908	May, 1913.	XXI, 434
Volney G. Barbour	1894	June 4, 1901.	IX, 340
Charles B. Brush	1893	June 3, 1897.	VII, 181
Storm Bull	1893	November 18, 1907.	XVI, 407
Octave Chanute	1907	November 23, 1910.	XIX, 501
S. B. Charters, Jr.	1911	December 29, 1912.	XX, Part II, 493
S. B. Christy	1893	Nov. 30, 1914.	XXII, 415
Eckley B. Coxe	1894	May 13, 1895.	VII, 182
Chas. S. Denison	1893	July 31, 1913.	XXII, 411
Dickinson, W. P.	1909	Nov. 4, 1915.	
A. J. DuBois	1894	Oct. 19, 1915.	
Thomas M. Drown	1895	November 16, 1904.	XII, 244
Chas. B. Dudley	1894	December 21, 1909.	XVIII, 446
Francis R. Fava, Jr.	1894	March 28, 1896.	VII, 183
A. J. Frith	1911	November 10, 1913.	XXI, 435
Estevan A. Fuertes	1894	January 16, 1903.	XI, 372
Henry Fulton	1894	December 6, 1901.	X, 258
John Galbraith	1893	July 22, 1914.	XXII, 410
Thomas Gray	1895	December 19, 1908.	XVII, 238
Wm. F. Gurley	1913	February 17, 1915.	XXII, 417
Herbert G. Greer	1894	March 7, 1900.	VIII, 371
Lyman Hall	1904	August 16, 1905.	XIV, 287
E. L. Hancock	1903	October 1, 1911.	XIX, 505
Albert H. Heller	1903	February 20, 1906.	XIV, 290
H. R. Huelle	1914		
John B. Johnson	1893	June 23, 1902.	X, 259
J. W. Johnson	1907	August 29, 1911.	XIX, 506
Rodney G. Kimball	1894	April 25, 1900.	X, 261
Burton S. Lanphear	1897	October 14, 1904.	XII, 249
Benjamin F. La Rue	1899	December 22, 1903.	XII, 243
N. W. Lord	1907	May 23, 1911.	XIX, 507
C. S. Magowan	1896	November 14, 1907.	XVI, 406
F. O. Marvin	1893	Feb. 11, 1915.	XXII, 416

DECEASED MEMBERS.

Name.	Year of Election	Date of Death.	Memoir. Vol. Page.
Charles P. Matthews..	1898....	November 23, 1907.	XVI, 408
J. D. Newton.....	1908....	August 8, 1912.	XX, Part II, 490
T. M. Phetteplace.....	1903....	September, 7, 1913.	XXI, 436
S. W. Robinson.....	1893....	October 31, 1910.	XIX, 510
J. D. Schuyler.....	1910....	September 13, 1912.	XX, Part II, 494
Justus M. Silliman...	1894....	April 15, 1896.	VII, 184
T. Guilford Smith.....	1911....	February 20, 1912.	XX, Part II, 492
H. W. Spangler.....	1893....	March 17, 1912.	XX, Part II, 488
James H. Stanwood....	1894....	May 24, 1896.	VII, 185
F. H. Stillman.....	1911....	February 18, 1912.	XX, Part II, 490
Jos. E. Stubbs.....	1897....	May 27, 1914.	XXII, 412
Fred. W. Taylor	1912....	March 21, 1915.	XXII, 413
Robert H. Thurston...	1893....	October 25, 1903.	XII, 246
Alphonse N. Van Dahll.	1897....	March 28, 1899.	VII, 186
J. A. Veazey.....	1911....	August 21, 1911.	XIX, 512
John R. Wagner.....	1894....	January 21, 1899.	VII, 187
Francis A. Walker....	1896....	January 5, 1897.	VII, 188
Howard S. Webb.....	1897....	June 12, 1905.	XIV, 286
Nelson O. Whitney....	1893....	March 17, 1901.	IX, 339
James R. Willett.....	1896....	May 9, 1907.	XV, 679
De Volson Wood.....	1893....	June 27, 1897.	V, 325
Calvin M. Woodward...	1893....	January 12, 1914.	XXI, 437